

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a Part 70 Permit

for **Cummins Engine Company, Inc. Plant #1**
in **Bartholomew County**

Part 70 No.: T 005-7433-00015

Notice is hereby given that the above-mentioned company, located at 1000 5th Street, Columbus, Indiana 47201, has made application to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Part 70 Permit for the a stationary manufacturing, testing, and painting internal combustion engines source.

A Part 70 permit consolidates all of a source's applicable air pollution control requirements into one permit. This proposed Part 70 permit includes provisions that ensure that compliance with these requirements can be determined.

This proposed Part 70 permit does not contain any new proposed emission units.

Notice is hereby given that there will be a period of thirty (30) days from the date of publication of this notice during which any interested person may comment on why this proposed permit should or should not be issued. Appropriate comments should be related to any air quality issues, interpretation of the state and federal rules, calculations made, technical issues, or the effect that the operation of this source would have on any aggrieved individuals. IDEM, OAM does not have jurisdiction in specifying and implementing requirements for zoning, odor or noise. For such issues, please contact your local officials.

A copy of the application and draft permit is available for examination at the Bartholomew Public Library located at 536 5th Street, Columbus, Indiana. A copy of the draft permit is also available for examination at www.state.in.us/idem/oam/index.html. All statements, along with supporting documentation, should be submitted in writing to the IDEM, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015. If adverse comments concerning the **air pollution impact** of this proposed permit are received, together with a request for a public hearing, such a hearing may be held to give further consideration to this application.

Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the OAM, at the above address. All interested parties of record will receive a notice of the decision on this matter and will then have fifteen (15) days after receipt of the Notice of Decision to file a petition for administrative review. Procedures for filing such a petition will be enclosed with the Notice.

Questions should be directed to Mark L. Kramer, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

MLK/MES

PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Cummins Engine Company, Inc. Plant #1
1000 5th Street
Columbus, Indiana 47201**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 005-7433-00015	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: Expiration Date:

TABLE OF CONTENTS

TABLE OF CONTENTS

A	SOURCE SUMMARY	6
A.1	General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]	
A.4	Part 70 Permit Applicability [326 IAC 2-7-2]	
B	GENERAL CONDITIONS	10
B.1	Definitions [326 IAC 2-7-1]	
B.2	Permit Term [326 IAC 2-7-5(2)]	
B.3	Enforceability [326 IAC 2-7-7]	
B.4	Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]	
B.5	Severability [326 IAC 2-7-5(5)]	
B.6	Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]	
B.7	Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]	
B.8	Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]	
B.9	Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]	
B.10	Annual Compliance Certification [326 IAC 2-7-6(5)]	
B.11	Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1)and(6)] [326 IAC 1-6-3]	
B.12	Emergency Provisions [326 IAC 2-7-16]	
B.13	Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]	
B.14	Multiple Exceedances [326 IAC 2-7-5(1)(E)]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]	
B.17	Permit Renewal [326 IAC 2-7-4]	
B.18	Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]	
B.19	Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]	
B.20	Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]	
B.21	Source Modification Requirement [326 IAC 2-7-10.5]	
B.22	Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]	
B.23	Transfer of Ownership or Operational Control [326 IAC 2-7-11]	
B.24	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]	
C	SOURCE OPERATION CONDITIONS	21
	Emission Limitations and Standards [326 IAC 2-7-5(1)]	
C.1	Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Operation of Equipment [326 IAC 2-7-6(6)]	

- C.7 Stack Height [326 IAC 1-7]
- C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

Testing Requirements [326 IAC 2-7-6(1)]

- C.9 Performance Testing [326 IAC 3-6]

Compliance Requirements [326 IAC 2-1.1-11]

- C.10 Compliance Requirements [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

- C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
- C.12 Maintenance of Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]
- C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]
- C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5]
[326 IAC 2-7-6]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]
[326 IAC 2-6]
- C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
- C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1 FACILITY OPERATION CONDITIONS: Surface Coating, EU-01 29

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.1.5 Volatile Organic Compounds (VOC)
- D.1.6 VOC Emissions

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.1.7 Particulate Matter (PM)
- D.1.8 Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.1.9 Record Keeping Requirements
- D.1.10 Reporting Requirements

D.2 FACILITY OPERATION CONDITIONS: Test Cells & Stands, EU-02, EU-TS1 and EU-TS2 33

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.2.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]
- D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.2.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.2.5 Continuous Opacity Monitors
- D.2.6 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.2.7 Record Keeping Requirements
- D.2.8 Reporting Requirements

D.3 FACILITY OPERATION CONDITIONS: Boilers, EU-03 37

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.3.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.3.2 Particulate Matter Limitation (PM) [326 IAC 6-2-3]
- D.3.3 Particulate Matter Limitation (PM) [326 IAC 6-2-4]
- D.3.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]
- D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.3.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.3.7 Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.3.8 Record Keeping Requirements
- D.3.9 Reporting Requirements

D.4 FACILITY OPERATION CONDITIONS: Surface Coating, EU-04 41

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.4.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.4.3 Particulate Matter (PM) [326 IAC 6-3-2]
- D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.4.5 Volatile Organic Compounds (VOC)
- D.4.6 VOC Emissions

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.4.7 Particulate Matter (PM)
- D.4.8 Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.9 Record Keeping Requirements

D.4.10 Reporting Requirements

D.5 FACILITY OPERATION CONDITIONS: Insignificant Activities 44

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

D.5.2 Volatile Organic Compounds (VOC)

D.5.3 Volatile Organic Compounds (VOC)

Certification 47

Emergency Occurrence Report 48

Natural Gas-Fired Boiler Certification 50

Quarterly Report Forms 51

Quarterly Deviation and Compliance Monitoring Report 55

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary manufacturing, testing and painting internal combustion engines source.

Responsible Official:	Robert Sonntag
Source Address:	1000 5 th Street, Columbus, Indiana 47201
Mailing Address:	P.O. Box 3005, Columbus, Indiana 47202-3005
SIC Code:	3519
County Location:	Bartholomew
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) N-14 painting line, known collectively as EU-01, consisting of the following equipment:
 - (1) One (1) primer application booth, known as EU-01A, installed in 1985, equipped with two (2) robotic air electrostatic applicators and two (2) fixed conventional air applicator systems composed of twelve (12) fixed air applicators, each, dry filters for overspray control, exhausted to Stacks P1 and P2, capacity: 30 engines per hour.
 - (2) One (1) top coat application booth, known as EU-01B, installed in 1960, equipped with two (2) robotic air electrostatic applicators and two (2) fixed conventional air applicator systems composed of twelve (12) fixed air applicators, each, dry filters for overspray control, exhausted to Stacks T1 and T2, capacity: 30 engines per hour.
 - (3) One (1) final touch-up booth, known as EU-01C, installed in 1960, equipped with three (3) fixed conventional air applicators, aerosol cans, exhausted to Stacks TU1 and TU2, and dry filters for overspray control, capacity: 30 engines per hour.
 - (4) One (1) toluene solvent wiping operation, known as EU-01D, installed in 1960, exhausted to the general ventilation, capacity: 30 engines per hour.
 - (5) One (1) Mod spray booth known as EU-01E, installed in 1963, equipped with one (1) conventional air applicator, exhausted to Stack MOD, capacity: 2 engines per hour.

- (b) Twelve (12) endurance test cells, known as EU-02A, installed in 1974 or prior, exhausted to Stacks 101-105, 601-603, and 1-4, maximum output 500 horsepower and total heat input of 40.48 million British thermal units per hour, capacity: 292.8 gallons of No. 2 fuel oil per hour, total.
- (c) Eighteen (18) production test cells, known as EU-02B, installed in 1974 or prior, exhausted to stacks 106, 107, 201-207, 301-303, 401-403, 501-503 and 1-4, maximum output 500 horsepower and total heat input of 41.58 million British thermal units per hour, capacity: 300.6 gallons of No. 2 fuel oil per hour, total.
- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, with a heat input rating of 0.008 million British thermal units per hour and an output rating of 550 horsepower, capacity: 22 engines per hour.
- (e) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03A, installed in 1960, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (f) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03B, installed in 1961, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (g) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03C, installed in 1951, exhausted to Stack B2, rated at 21 million British thermal units per hour.
- (h) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03D, installed in 1985, exhausted to Stack B2, rated at 50 million British thermal units per hour.
- (i) One (1) heavy duty robotic paint line, known as EU-04, installed in 1997, exhausted to Stacks RB, MB-1 and MB-2, capacity: 20 engines per hour, consisting of:
 - (1) One (1) robotic paint booth, equipped with electrostatic application system and dry filters for overspray control, and
 - (2) One (1) manual paint booth, equipped with electrostatic application system and dry filters for overspray control.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour.
- (c) The following VOC and HAP storage containers:
 - Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (d) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.

- (e) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5].
- (h) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or;
 - (2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (i) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.
- (j) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (k) Noncontact cooling tower systems with either of the following:

Forced and induced draft cooling tower system not regulated under a NESHAP.
- (l) Quenching operations used with heat treating processes.
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (n) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.
- (o) Paved and unpaved roads and parking lots with public access.
- (p) Asbestos abatement projects regulated by 326 IAC 14-10.
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (r) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (s) Emergency generators as follows:

Diesel generators not exceeding 1,600 horsepower.
- (t) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic

feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2].

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When

furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard

Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

-
- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit

contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
- (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

- (1) That this permit contains a material mistake.

- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
 - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to

process the application.

- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20 (b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy any records that must be kept under the conditions of this permit;
- (c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.12 Maintenance of Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the continuous opacity monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (b) Whenever the continuous opacity monitor is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.
- (c) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.
- (d) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
- (e) The opacity readings during this period shall be reported in the quarterly Compliance Monitoring Reports, unless there are ANY observed six minute averaged exceedances, in which case, these shall be reported to the air compliance inspector within four (4) working hours.
- (f) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary opacity monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this

permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

- (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these

response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
- (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly or semi-annual report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) N-14 painting line, known collectively as EU-01, consisting of the following equipment:
- (1) One (1) primer application booth, known as EU-01A, installed in 1985, equipped with two (2) robotic air electrostatic applicators and two (2) fixed conventional air applicator systems composed of twelve (12) fixed air applicators, each, dry filters for overspray control, exhausted to Stacks P1 and P2, capacity: 30 engines per hour.
 - (2) One (1) top coat application booth, known as EU-01B, installed in 1960, equipped with two (2) robotic air electrostatic applicators and two (2) fixed conventional air applicator systems composed of twelve (12) fixed air applicators, each, dry filters for overspray control, exhausted to Stacks T1 and T2, capacity: 30 engines per hour.
 - (3) One (1) final touch-up booth, known as EU-01C, installed in 1960, equipped with three (3) fixed conventional air applicators, aerosol cans, exhausted to Stacks TU1 and TU2, and dry filters for overspray control, capacity: 30 engines per hour.
 - (4) One (1) toluene solvent wiping operation, known as EU-01D, installed in 1960, exhausted to the general ventilation, capacity: 30 engines per hour.
 - (5) One (1) Mod spray booth known as EU-01E, installed in 1963, equipped with one (1) conventional air applicator, exhausted to Stack MOD, capacity: 2 engines per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts or products may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.5 pounds of VOC per gallon of coating excluding water for extreme performance coatings, delivered to spray applicators in EU-01A, EU-01B and EU-01E.
- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts or products may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.5 pounds of VOC per gallon of coating excluding water for extreme performance coatings, delivered to spray applicators in EU-01C, computed on a daily volume weighted average basis. The daily volume weighted average of VOC content shall be calculated using the following formula, where n is the number of coatings (c):

$$\frac{c = n}{3 \text{ coating } c \text{ (gal)} \times \text{VOC content of } c \text{ (lbs/gal, less water)}} \\ c = 1 \\ c = n \\ 3 \text{ coating } c \text{ (gal)} \\ c = 1$$

- (c) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the

application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) The VOC delivered to the applicators of EU-01A, shall be less than a total of 38.8 tons, including coatings, dilution solvents, and cleaning solvents, per twelve (12) consecutive month period. Compliance with this limit makes the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.
- (b) The requirements of OP 03-05-91-0144, issued October 6, 1988, Condition No. 6 that the quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions from the primer coat spray booth, EU-01A, shall not exceed 39.6 tons of VOC per twelve (12) consecutive month period is not applicable because all four (4) booths constructed in 1985 need to be limited in order to avoid the applicability of 326 IAC 2-2 and to allow for the boiler, EU-03D, to remain unlimited when using natural gas.
- (c) The requirements of OP 03-05-87-0129, issued on March 4, 1986, Condition No. 5 that the quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions shall not exceed 61 tons per year (37 tons per year from the new operation and 24 tons per year from the existing operation) is not applicable because only the primer booth (EU-01A) and boiler (EU-03D) were constructed in 1985. EU-01A should be limited to less than 38.8 tons per twelve (12) consecutive month period accounting for the full potential of the boiler of 1.20 tons per year ($40 - 1.20 = 38.8$). The other two (2) booths are not limited since they were constructed in 1960.
- (d) The requirements of PC (03) 1594, issued on November 6, 1985, Condition No. 1a that the quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions shall not exceed 37 tons per year is not applicable because only the primer booth (EU-01A) and boiler (EU-03D) were constructed in 1985. EU-01A should be limited to less than 38.8 tons per twelve (12) consecutive month period accounting for the full potential of the boiler of 1.20 tons per year ($40 - 1.20 = 38.8$). The other two (2) booths are not limited since they were constructed in 1960.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the PM from EU-01A, EU-01B, EU-01C, EU-01D and EU-01E shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this

permit, is required for EU-01A, EU-01B, EU-01C, EU-01D and EU-01E and any control devices.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.6 VOC Emissions

Compliance with Condition D.1.2(a) shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the month.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.7 Particulate Matter (PM)

In order to comply with Condition D.1.3, the dry filters for PM control shall be in operation at all times when EU-01A, EU-01B, EU-01C, and EU-01E are in operation.

D.1.8 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (P1, P2, T1, T2, TU1 and TU2) while one (1) or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC content limit and the VOC usage limit established in Condition D.1.1.
 - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;

- (3) The volume weighted VOC content of the coatings used in EU-01C for each day; and
 - (4) The total VOC usage for each day in EU-01C.
- (b) To document compliance with Condition D.1.2(a), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.2(a).
 - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (c) To document compliance with Conditions D.1.7 and D.1.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (b) Twelve (12) endurance test cells, known as EU-02A, installed in 1974 or prior, exhausted to Stacks 101-105, 601-603, and 1-4, maximum output 500 horsepower and total heat input of 40.48 million British thermal units per hour, capacity: 292.8 gallons of No. 2 fuel oil per hour, total.
- (c) Eighteen (18) production test cells, known as EU-02B, installed in 1974 or prior, exhausted to stacks 106, 107, 201-207, 301-303, 401-403, 501-503 and 1-4, maximum output 500 horsepower and total heat input of 41.58 million British thermal units per hour, capacity: 300.6 gallons of No. 2 fuel oil per hour, total.
- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, with a heat input rating of 0.008 million British thermal units per hour and an output rating of 550 horsepower, capacity: 22 engines per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) The two (2) test stands, EU-TS1 and EU-TS2, shall not exceed 346.75 gallons of diesel fuel per twelve (12) consecutive month period, equivalent to 0.027 tons of VOC per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.
- (b) The total PM and PM₁₀ from the two (2) test stands, EU-TS1 and EU-TS2 and EU-04, shall not exceed twenty five (25) and fifteen (15) tons per year, respectively. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.
- (c) The requirements of CP 005-5350-00015, issued on January 14, 1997, that stated that the total diesel fuel delivered to test stands, EU-TS1 and EU-TS2, shall not exceed 0.95 gallons per day, equivalent to 0.15 pounds per day has been changed to a twelve (12) consecutive month period.

D.2.2 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

- (a) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from the each of the test cells, EU-02A and EU-02B, shall not exceed five tenths (0.5) pounds per million British thermal units heat input.
- (b) The requirements from Condition 4 of the following permits: OP 03-05-91-0146, issued on October 6, 1988, OP 03-05-91-0147, issued on October 6, 1988, OP 03-05-91-0148, issued on October 6, 1988, OP 03-05-91-0149, issued on October 6, 1988, and OP 03-05-91-0150, issued on October 6, 1988, which limited SO₂ emissions from the diesel engine test cells to 6.0 pounds per million British thermal units heat input were not incorporated. The rule applicability was re-evaluated and since the diesel test cells only burn distillate oil then pursuant 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions should be limited to five tenths (0.5) pounds per million British thermal units heat input.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for EU-02A, EU-02B, EU-TS1 and EU-TS2 and their control devices.

Compliance Determination Requirements

D.2.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal units heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling;
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the thirty (30) test cells and the two (2) test stands, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.5 Continuous Opacity Monitors

The Permittee shall continuously operate the opacity monitoring devices on test cell stack exhausts 101 -107, 201 - 207, 301 - 303, 401 - 403 and 501 - 503 to insure compliance with the opacity limits of Condition C.2.

D.2.6 Visible Emissions Notations

- (a) Visible emission notations of the test cell stack exhausts 1 - 4 and 601 - 603 shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.7 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.2.1(a), the Permittee shall maintain records in accordance with (1) and (2) below:
 - (1) Calendar dates covered in the compliance determination period; and
 - (2) Actual fuel oil usage since last compliance determination period and equivalent volatile organic compounds emissions.
- (c) To document compliance with Condition D.2.5, the Permittee shall maintain records of opacity, including raw data and supporting information, from the continuous opacity monitor on test cell stack exhausts 101 -107, 201 - 207, 301 - 303, 401 - 403 and 501 - 503 for a minimum of five (5) years from the date of any of the following:
 - (1) a monitoring sample;
 - (2) a measurement;

- (d) To document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the test cell stack exhausts once per shift.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (e) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03A, installed in 1960, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (f) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03B, installed in 1961, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (g) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03C, installed in 1951, exhausted to Stack B2, rated at 21 million British thermal units per hour.
- (h) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03D, installed in 1985, exhausted to Stack B2, rated at 50 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The amount of No. 2 fuel oil delivered to the boiler, EU-03D, shall be limited to less than 1,126,800 gallons per twelve (12) consecutive month period, equivalent to less than forty (40) tons of SO₂ at 0.5% sulfur content per twelve (12) consecutive month period. For purposes of this SO₂ limit, each million cubic feet of natural gas combusted in this dual fuel boiler shall be equivalent to 8.45 gallons of No. 2 fuel oil. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.

D.3.2 Particulate Matter (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(d), the PM emissions from boilers, EU-03A, EU-03B and EU-03C, shall each be limited to 0.8 pounds per million British thermal units heat input.

D.3.3 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(d)), the PM emissions from boiler, EU-03D, shall be limited to 0.300 pounds per million British thermal units heat input as calculated by the following equation:

$$P_t = \frac{1.09}{Q^{0.26}}$$

where:

P_t = Pounds of particulate matter emitted per million British thermal units.

Q = Total source maximum operating capacity rating in million British thermal units heat input. The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used.

D.3.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from each of the four (4) boilers, EU-03A, EU-03B, EU-03C and EU-03D shall not exceed five-tenths (0.5) pound per million British thermal units heat input while combusting fuel oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.3.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options for four (4) boilers, EU-03A, EU-03B, EU-03C and EU-03D.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal units heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.7 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack exhausts (B1 and B2) shall be performed once per shift during normal daylight operations while combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.8 Record Keeping Requirements

- (a) To document compliance with Conditions D.3.1 and D.3.4, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.3.7, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts once per shift.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.9 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall certify, on the form provided, that natural gas was fired in each of the boilers at all times during each quarter. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (i) One (1) heavy duty robotic paint line, known as EU-04, installed in 1997, exhausted to Stacks RB, MB-1 and MB-2, capacity: 20 engines per hour, consisting of:
 - (1) One (1) robotic paint booth, equipped with electrostatic application system and dry filters for overspray control, and
 - (2) One (1) manual paint booth, equipped with electrostatic application system and dry filters for overspray control.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts or products may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.5 pounds of VOC per gallon of coating excluding water for extreme performance coatings, delivered to spray applicators in EU-04.
- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.4.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (a) The VOC delivered to the applicators of the heavy duty robotic paint line, EU-04, shall not exceed 39.5 tons of VOC per twelve (12) consecutive month period, including coatings, dilution solvents, and cleaning solvents. Compliance with this limit shall make the requirements of 326 IAC 2-2 not applicable.
- (b) The total PM and PM₁₀ from EU-04 and the two (2) test stands, EU-TS1 and EU-TS2, shall not exceed twenty five (25) and fifteen (15) tons per year, respectively. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21 not applicable.
- (c) The requirements of CP 005-5350 issued January 14, 1997, Condition No. 10 that stated that the volatile organic compounds (VOCs) emitted from the surface coating operation (EU-04), including clean-up activities shall be limited to 39.5 tons per 365-day period, rolled on a daily basis has been revised to a twelve (12) consecutive month period limit.

D.4.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the PM from EU-04 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall

be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for EU-04 and any control devices.

Compliance Determination Requirements

D.4.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.4.1 and D.4.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.4.6 VOC Emissions

- (a) Compliance with Condition D.4.1(a) shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent month.
- (b) Compliance with Condition D.4.2(a) shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent month.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.7 Particulate Matter (PM)

In order to comply with Condition D.4.3, the dry filters for PM control shall be in operation at all times when EU-04 are in operation.

D.4.8 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (RB, MB-1 and MB-2) while one (1) or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.1(a) and D.4.2(a), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limits and the VOC usage limit established in Conditions D.4.1(a) and D.4.2(a).
- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month in EU-04;
 - (4) The total VOC usage for each month in EU-04; and
 - (5) The weight of VOCs emitted for each compliance period from EU-04.
- (b) To document compliance with Condition D.4.7 and D.4.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]
- (b) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone. [326 IAC 6-3-2]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the trimming, grinding and machining operations shall not exceed allowable PM emission rate based on the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.5.2 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;

- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.5.3 Volatile Organic Compounds (VOC)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall

ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015

This form consists of 2 pages

Page 1 of 2

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- ☐ The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - ☐ The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
NATURAL GAS-FIRED BOILER CERTIFICATION**

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Report period

Beginning: _____

Ending: _____

Boiler Affected

Alternate Fuel

Days burning alternate fuel

From

To

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature: _____

Printed Name: _____

Title/Position: _____

Date: _____

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015
Facilities: Test Stands, EU-TS1 and EU-TS2
Parameter: Diesel Fuel
Limit: 346.75 gallons per twelve (12) consecutive month period total, equivalent to 0.027 tons of VOC per year

YEAR: _____

Month	Diesel Fuel (gallons)	Diesel Fuel (gallons)	Diesel Fuel (gallons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification is complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015
Facilities: Robotic Paint Line, EU-04 (Robotic and Manual Paint Booths)
Parameter: VOC delivered to the applicators
Limit: 39.5 tons per twelve (12) consecutive month period

Month: _____ **Year:** _____

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification is complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015
Facility: EU-01A
Parameter: VOC delivered to the applicators
Limit: 38.8 tons per twelve (12) consecutive month period

YEAR: _____

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification is complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015
Facility: EU-03D
Parameter: No. 2 Fuel Oil or Equivalent
Limit: 1,126,800 gallons per twelve (12) consecutive month period. One (1) million cubic feet of natural gas is equivalent to 8.45 gallons of No. 2 fuel oil

YEAR: _____

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification is complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION and COMPLIANCE MONITORING REPORT**

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Operating Permit

Source Name: Cummins Engine Company, Inc. Plant #1
Source Location: 1000 5th Street, Columbus, Indiana 47201
County: Bartholomew
SIC Code: 3519
Operation Permit No.: T 005-7433-00015
Permit Reviewer: Mark L. Kramer

On October 5, 2000, the Office of Air Quality (OAQ) had a notice published in the Republic, Columbus, Indiana, stating that Cummins Engine Company, Inc. Plant #1 had applied for a Part 70 Operating Permit to operate a manufacturing, testing, and painting internal combustion engines source. The notice also stated that OAQ proposed to issue a Part 70 Operating Permit for this operation and provided information on how the public could review the proposed Part 70 Operating Permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Part 70 Operating Permit should be issued as proposed.

On November 2, Mark Slaton of Cummins Engine Company submitted comments on the proposed Part 70 Operating Permit. The comments are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

Page 6, Section A.2.(a) (1) – Lists the unit description for EU-01A (primer booth). The description includes “(2) fixed conventional air applicators”, a more detailed description would be (2) fixed conventional air applicator systems composed of 12 fixed air applicators each. The original application and emission calculations were based on this configuration.

Page 6, Section A.2. (a) (2) – List the unit description for EU-01B (top coat booth). The description includes “(2) fixed conventional air applicators”, a more detailed description would be (2) fixed conventional air applicator systems composed of 12 fixed air applicators each.

Page 6, Section A.2. (a) (3) – List the unit description for EU-01C (touch-up booth). The description includes “(2) fixed conventional air applicators”. This is also incorrect as there are 3 such applicators for this area. Also it lists “general ventilation” for the aerosol cans used in this area. This is incorrect, there are overhead hoods that keep the aerosol emissions from getting into the general ventilation.

Response 1:

Conditions A.2(a)(1) - (3) and Section D.1 have been revised as requested as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) N-14 painting line, known collectively as EU-01, consisting of the following equipment:

- (1) One (1) primer application booth, known as EU-01A, installed in 1985, equipped with two (2) robotic air electrostatic applicators and two (2) fixed conventional air applicators **systems composed of twelve (12) fixed air applicators, each**, dry filters for overspray control, exhausted to Stacks P1 and P2, capacity: 30 engines per hour.
- (2) One (1) top coat application booth, known as EU-01B, installed in 1960, equipped with two (2) robotic air electrostatic applicators and two (2) fixed conventional air applicators **systems composed of twelve (12) fixed air applicators, each**, dry filters for overspray control, exhausted to Stacks T1 and T2, capacity: 30 engines per hour.
- (3) One (1) final touch-up booth, known as EU-01C, installed in 1960, equipped with **three two (32)** fixed conventional air applicators, **aerosol cans**, exhausted to Stacks TU1 and TU2, and ~~aerosol cans exhausted to the general ventilation~~, dry filters for overspray control, capacity: 30 engines per hour.

Comment 2:

Page 7, A.2 Sections b, c, and d - Lists the unit descriptions for the facility test cells/stands. Due to changes in technology and customer demand, horsepower ratings of the engines and our capabilities for fuel consumption may change during the life of the proposed permit. Cummins requests that references to engine size and fuel flow rate be removed from the descriptive information in sections b, c, and d. Cummins suggests the following language for the respective descriptions as is consistent with previous permits:

- (b) Twelve (12) endurance test cells, known as EU-02A, installed in 1974 or prior, exhausted to Stacks 101-105, 601-603, and 1-4, using #2 fuel oil at the above diesel engine manufacturing plant.
- (c) Eighteen (18) production test cells, known as EU-02B, installed in 1974 or prior, exhausted to stacks 106, 107, 201-207, 301-303, 401-403, 501-503, using #2 fuel oil at the above diesel engine manufacturing plant.
- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, with a heat input rating of 0.008 million British thermal units per hour and a capacity of 22 engines per hour.

Response 2:

The maximum capacities of these test cells and engine stands can not be removed from the equipment descriptions because the potential emissions are based upon these capacities. The changes in technology and customer demand, horsepower ratings of the engines and Cummins Engine Company's capabilities for fuel consumption, if in deed do change during the life of the proposed permit, would require that any change that would increase the potential to emit be approval prior to the change by IDEM, OAQ. Conditions A.2(b) and (c) and Section D.2 have been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (b) Twelve (12) endurance test cells, known as EU-02A, installed in 1974 **or prior**, exhausted to Stacks 101-105, 601-603, and 1-4, maximum output 500 horsepower and total heat input of 40.48 million British thermal units per hour, capacity: 292.8 gallons of **No. 2** fuel **oil** per hour, total.
- (c) Eighteen (18) production test cells, known as EU-02B, installed in 1974 **or prior**, exhausted to stacks 106, 107, 201-207, 301-303, 401-403, 501-503 and 1-4, maximum output 500 horsepower and total heat input of 41.58 million British thermal units per hour, capacity: 300.6 gallons of **No. 2** fuel **oil** per hour, total.
- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, with a heat input rating of 0.008 million British thermal units per hour and an output rating of 550 horsepower, capacity: 22 engines per hour.

Comment 3:

Page 34, Section D.2.4 – After review of rule 326 IAC 3-7-4, it is clear that either certified vendor analysis or on site testing of the fuel oil is required to comply with this rule. Cummins requests that the word “or” appear after D.2.4 (a)(1).

Page 34, Section D.2.4. (b) We are not sure what is meant by “the thirteen (13) MMBtu/hour heater”. Perhaps this is a typographical error that refers to the test cells. Cummins requests clarification.

Response 3:

Condition D.2.4 (Sulfur Dioxide Emissions and Sulfur Content) the word “or” was added to (a)(1) to clarify that the source has an option between (1) and (2) for demonstrating that the sulfur dioxide emissions do not exceed 0.5 pounds per million British thermal units and the reference to the test cells has been added as follows:

D.2.4 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a **vendor** certification, **or**;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; ~~or~~.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the **thirty (30) tests cells and the two (2) test stands** ~~thirteen (13) MMBtu per hour heater~~, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC

3-6.

A determination of noncompliance pursuant to ~~either~~ **any** of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Comment 4:

Section A.3 – Not all of the insignificant activities that were listed in the application on the GSD-10 forms, are listed in the permit. We have attached the original GSD-10 forms for your reference. The following activities should be added:

Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.

Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.

Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

Machining where an aqueous cutting coolant continuously floods the machining interface.

Cleaners and solvents characterized as follows:

- (A) having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100 F) or;
- (B) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20 C (68 F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

Forced and induced draft cooling tower system not regulated under a NESHAP.

Quenching operations used with heat treating processes.

Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

Paved and unpaved roads and parking lots with public access.

Asbestos abatement projects regulated by 326 IAC 14-10.

Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

Diesel generators not exceeding 1600 horsepower.

Response 4:

All the insignificant activities at the source were listed in the Technical Support Document. Based on your re-submittal of Form GSD-10a, the following insignificant activities are no longer at the source.

- (c) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (l) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.
- (w) Other emergency equipment as follows:

Stationary fire pumps.

Only those insignificant activities that were specifically regulated were listed in the proposed permit in Condition A.3. The request to list all of the insignificant activities in the permit has been accomplished by revising Condition A.3 as follows. Only the insignificant activities with applicable rules are listed in Section D.5:

A.3 ~~Specifically Regulated~~ Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities ~~which are specifically regulated~~, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.**
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour.**
- (c) The following VOC and HAP storage containers:**

Storage tanks with capacity less than or equal to 1,000 gallons and annual through-

puts less than 12,000 gallons.

- (d) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.**

- (e) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.**
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface.**
- (gi) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]**
- (h) Cleaners and solvents characterized as follows:**
 - (1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or;**
 - (2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.**
- (i) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.**
- (j) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.**
- (k) Noncontact cooling tower systems with either of the following:**

Forced and induced draft cooling tower system not regulated under a NESHAP.
- (l) Quenching operations used with heat treating processes.**
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.**
- (ne) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.**
- (o) Paved and unpaved roads and parking lots with public access.**
- (p) Asbestos abatement projects regulated by 326 IAC 14-10.**
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.**
- (r) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.**
- (s) Emergency generators as follows:**

Diesel generators not exceeding 1,600 horsepower.

- (t×) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

Comment 5:

Page 43, Section D.4.9 – Lists the requirements for the Apex painting operation. The permit requires daily records for our paint and solvent usage for EU-04. We request that the daily requirement be replaced with monthly record keeping. Cummins currently uses coatings that comply with 326 8-2-9 in this booth; therefore daily record keeping is not required.

Response 5:

Condition D.4.9(a) has been changed to require that records be taken monthly rather than daily since all coating on metal comply with the VOC content limit of 326 IAC 8-2-9 without volume weighted averaging.

D.4.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.1(a) and D.4.2(a), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken **monthly** ~~daily~~ and shall be complete and sufficient to establish compliance with the VOC content limits and the VOC usage limit established in Conditions D.4.1(a) and D.4.2(a).

Upon further review, the OAQ has decided to make the following changes to the Part 70 Operating Permit: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~ and new language is **bolded**):

Front Page

1. The expiration has been added to the signature box. The expiration is exactly 5 years after the issuance date. For example, if the permit was issued December 13, 1996, the expiration date would be December 13, 2001.

Operation Permit No.: T 005-7433-00015	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: Expiration Date:

Section A

2. Condition A.1 (General Information) has had the following rule cite added which is the definition of a major source in 326 IAC 2-7. IDEM is no longer including the phone number of the contact person, because it is cumbersome to do an administrative amendment every time the telephone number is changed as follows:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] **[326 IAC 2-7-1(22)]**

Phone Number: 812-377-8867

Section B

3. Condition B.1 (Permit No Defense) has been deleted. This is not in IC13, but IDEM has the general authority for this in 326 IAC 2-7-15. Therefore, most of this language has been added to Condition B.14 (now B.13)(Permit Shield). Condition B.14 (now B.13) provides for when the possession of a permit does provide a defense and provides that it is only for those requirements in existence at the time of permit issuance. All other B conditions have been re-numbered as a result of this change.

~~B.1 Permit No Defense [IC 13]~~

- ~~(a) Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7.~~
- ~~(b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield."~~

4. Condition B.3 (now B.2) (Permit Term) has had language added to clarify that amendments, revisions or modifications do not extend the expiration date of the permit. The expiration date will always be five (5) years from the issuance date of the original permit. The expiration date will now be typed in the signature box as well.

B.2 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the ~~effective~~ **original** date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. **Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.**

5. Condition B.8 (now B.7) (Duty to Supplement and Provide Information) The condition has been reworded to match the language in the rule as follows:

B.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] **[326 IAC 2-7-6(6)]**

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking

and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). **Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]**

- (c) ~~Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, to~~ **When** furnishing copies of requested records directly to U. S. EPA, ~~then the Permittee must furnish record directly to the U. S. EPA.~~ The Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

6. Condition B.9 (now B.8) (Compliance with Permit Conditions) (c) has been added to clarify that an emergency does constitute a defense in an enforcement action if the Permittee complies with the emergency procedures as follows:

B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; or
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) **An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.**

7. Condition B.10 (now B.9)(Certification) (b) has been modified to clarify when a certification is needed as follows:

B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (b) One (1) certification shall be included, ~~on~~ **using** the attached Certification Form, with each submittal **requiring certification**.

8. Condition B.11 (now B.10) (Annual Compliance Certification) paragraph (a) has been revised to clarify that the initial certification is from the date of issuance until December 31. Paragraph (c) has been revised so that it matches the language in the rule.

B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the

status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. **The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent** The certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining **the** compliance **status** of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- 9. Condition B.12 (now B.11) (Preventive Maintenance Plan) the record keeping requirements have been added to this condition.

B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]

-
- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond it's the **Permittee's** control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
 - (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
 - (d) **Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.**
10. In Condition B.13 (now B.12)(Emergency Provisions) a reference to the Emergency Occurrence Report Form has been added to Condition B.13(b)(5) (now B.12(b)(5)). The emergency form is for emergencies only , and is no longer an emergency and deviation form. All deviations will now be reported on the Quarterly Deviation and Compliance Monitoring Report. In paragraph (d), part of the first sentence has been deleted. Since this is a Part 70 source, the malfunction rule has been superceded by the emergency rule. Paragraph (f) "compliance" has been changed to "accordance".

B.13 Emergency Provisions [326 IAC 2-7-16]

-
- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
 - (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

Cummins Engine Company, Inc. Plant #1
Columbus, Indiana
Permit Reviewer: MLK/MES

Page 14 of 44
T 005-7433-00015

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted **the attached Emergency Occurrence Report Form or its equivalent** notice, either in ~~writing by mail~~ or facsimile, ~~of the emergency~~ to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) ~~for sources subject to this rule after the effective date of this rule.~~ This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in ~~compliance~~ **accordance** with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

11. Condition B.14 (now B.13)(Permit Shield)has incorporated some of the language from Condition B.1. In Condition B.14(d) some of the language has been removed because it is unnecessary and would be contradictory to IDEM's revision of operating permits as follows:

B.14 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. **The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.**

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.

- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, ~~including any term or condition from a previously issued construction or operation permit~~, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
 - (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
 - (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408 (a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
 - (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
 - (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
 - (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(7)]
12. Condition B.16 (now B.15) (Deviations from Permit Requirements and Conditions) has been revised because IDEM is no longer requiring sources to report deviations in 10 days. Sources will report deviations quarterly on the Quarterly Deviation and Compliance Monitoring Report. References to the emergency report have been removed since deviations will not be reported on that form anymore. There is no longer a 5% exception for reporting deviations, since IDEM relaxed the ten (10) day notification to a quarterly report.

B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Compliance ~~Branch~~ **Data Section**, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

~~within ten (10) calendar days from the date of the discovery of the deviation using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. except for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.~~ **Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.**

The notification by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - ~~(2) An emergency as defined in 326 IAC 2-7-1(12); or~~
 - ~~(3)~~**(2)** Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) **Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.**

~~(c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the “responsible official” as defined by 326 IAC 2-7-1(34).~~

~~(d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.~~

13. Condition B.19 (now B.18) (Permit Amendment or Modification) 326 IAC 2-7-4(f) revised to clarify that all applications need to be certified by the responsible official. EPA has also requested this change.

B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the “responsible official” as defined by 326 IAC 2-7-1(34) ~~only if a certification is required by the terms of the applicable rule.~~

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

14. Condition B.21 (now B.20) (Operational Flexibility) (b) has been reorganized. Paragraph (b)(1) was deleted so that this condition would be consistent with the language in the rule as follows:

B.21 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). ~~and the following additional conditions:~~

~~(1) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).~~

(2) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

~~(A)~~(1) A brief description of the change within the source;

~~(B)~~(2) The date on which the change will occur;

~~(C)~~(3) Any change in emissions; and

~~(D)~~(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

15. Condition B.22 (now B.21) (Source Modification Requirement) has had the cite 326 IAC 2 added to make the condition more complete. The language “applicable provisions” has been removed because it is unnecessary as follows:

B.22 Source Modification Requirement [326 IAC 2] [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by ~~the applicable provisions of 326 IAC 2~~ **and** 326 IAC 2-7-10.5.

16. Condition B.23 (now B.22) (Inspection and Entry), the wording “At reasonable times” has been deleted because neither the rule nor the statute limits IDEM. IDEM could ask for these at any time.

B.23 Inspection and Entry [326 IAC 2-7-6(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - (b) Have access to and copy, ~~at reasonable times~~, any records that must be kept under the conditions of this permit;
 - (c) Inspect, ~~at reasonable times~~, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 - (d) Sample or monitor, ~~at reasonable times~~, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
 - (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. ~~[326 IAC 2-7-6(6)]~~
17. Condition B.24 (now B.23) (Transfer of Ownership or Operational Control) has been revised to clarify that 326 IAC 2-7-4(f) requires all applications to be certified by the responsible official. EPA has also requested this change.

B.24 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
 - (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
 - (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]
18. Condition B.25 (now B.24) (Annual Fee Payment) has had the rule cite added to paragraph (a) as follows:

B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. **Pursuant 326 IAC 2-7-19(b)**, if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

Section C

19. Condition C.6 (Operation of Equipment) has been revised to clarify the condition as follows:

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided **by statute, rule, or** in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

20. Condition C.7 (Stack Height) has had language added to clarify which parts of 326 IAC 1-7 are not federally enforceable.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. **The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.**

21. Condition C.8 (Asbestos Abatement Projects) has had the rule cite in the title changed to make it more generalized as follows:.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] ~~[40 CFR 61.140]~~ [40 CFR 61, Subpart M]

22. Condition C.9 (Performance Testing) has had the word "within" changed to "not later than" as follows:

C.9 Performance Testing [326 IAC 3-6]

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ ~~within~~ **not later than** forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation ~~within~~ **not later than** five (5) days prior to the end of the initial forty-five (45) day period.

23. Condition C.11 (Compliance Monitoring) - There are times when compliance monitoring is required by a MACT that the source does not have to comply with yet. Therefore, language has been added to clarify that the permit will specify when Compliance Monitoring does not have to start in ninety (90) days. The same idea applies to new units, if the MACT does not apply yet, IDEM would not expect the source to start compliance monitoring.

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015

Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

24. Condition C.12 (Maintenance of Emission Monitoring Equipment) has had the language revised to clarify the intent of the condition as follows:

C.12 Maintenance of Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (b) ~~In the case of continuous opacity monitoring;~~ Whenever the continuous opacity monitor is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, visible emission readings ~~should~~ **shall** be performed in accordance with 40 CFR 60, Appendix A, Method 9, **for a minimum of one (1) hour** beginning four (4) hours after the start of the malfunction or down time ~~for a minimum of one (1) hour.~~

25. Condition C.13 (Monitoring Methods) has had the following rule cites added.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, **40 CFR 60 Appendix B, 40 CFR 63**, or other approved methods as specified in this permit.

26. Condition C.15 (Risk Management Plan) has been revised to reflect the fact that if a source is subject to 40 CFR 68, they should have already submitted a Risk Management Plan as follows:

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68 ~~by the date provided in 40 CFR 68.10(a);~~ or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

27. Condition C.16 (Compliance Monitoring Plan - Failure to Take Response Steps) has had the following changes made: (a) "of" was added, (c) ";or" has been replaced with a period, (f) "(5%)" has been added to be consistent with the rest of the permit and changes were made to (a)(5) and (f).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole ~~of~~ information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
- (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps ~~shall~~ **may** constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.~~;~~~~or~~
 - (3) An automatic measurement was taken when the process was not operating.~~;~~~~or~~

- (4) The process has already returned or is returning to operating within “normal” parameters and no response steps are required.
 - (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
 - (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
 - (f) ~~If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.~~
 - (1) At its discretion, IDEM may excuse **the Permittee’s failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides such failure providing adequate justification is documented and documents that such failures do not exceed five percent (5%) of the operating time in any quarter.**
 - (2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.
28. In Condition C.17 (Actions Related to Noncompliance Demonstrated by a Stack Test), the phrase “corrective actions” has been changed to “response actions” to be consistent with the rest of the permit as follows:
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]
- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate **corrective response** actions. The Permittee shall submit a description of these **corrective response** actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the **corrective response** actions are being implemented.
29. Condition C.18 (Emission Statement) the word “estimated” was added to (a)(1) and (a)(2) because that is how 326 IAC 2-6 describes emissions as follows.
- C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)][326 IAC 2-6]
- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
 - (1) Indicate **estimated** actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate **estimated** actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

30. Condition C.19 (General Record Keeping Requirements) the word "monitoring" was removed so that the condition will seem more generalized to all record keeping, the word "reports" was added to clarify that the source must keep copies of those as well. Paragraphs (b) and (c) have been removed because they were unnecessary.

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required ~~monitoring~~ data, **reports** and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

~~(b) Records of required monitoring information shall include, where applicable:~~

~~(1) The date, place, and time of sampling or measurements;~~

~~(2) The dates analyses were performed;~~

~~(3) The company or entity performing the analyses;~~

~~(4) The analytic techniques or methods used;~~

~~(5) The results of such analyses; and~~

~~(6) The operating conditions existing at the time of sampling or measurement.~~

~~(c) Support information shall include, where applicable:~~

~~(1) Copies of all reports required by this permit;~~

~~All original strip chart recordings for continuous monitoring instrumentation;~~

~~(3) All calibration and maintenance records;~~

~~(4) Records of preventive maintenance.~~

~~(d)~~**(b) Unless otherwise specified in this permit**, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

31. Condition C.20 (General Reporting Requirements) has changed the Semi-Annual Compliance Monitoring Report to the Quarterly Deviation and Compliance Monitoring Report. References to the emergency report has been deleted. All the information is in Condition B.13. In paragraph (d) IDEM has clarified that the report does need to be certified by the responsible official. This change is also reflected in all the D sections and the reporting forms. EPA has also requested this change.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) ~~To affirm that the source has met all the compliance monitoring requirements stated in this permit~~ The source shall submit **a the attached Quarterly or Semi-Annual Deviation and Compliance Monitoring Report or its equivalent**. Any deviation from ~~the permit~~ requirements, ~~and~~, the date(s) of each deviation, **the cause of the deviation, and the response steps taken** must be reported. **This report shall be submitted within thirty (30) days of the end of the reporting period.** The **Quarterly Deviation and Compliance Monitoring Report** shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Cummins Engine Company, Inc. Plant #1
Columbus, Indiana
Permit Reviewer: MLK/MES

Page 28 of 44
T 005-7433-00015

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly or semi-Annual report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- ~~(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~
- ~~(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.~~
- ~~(g)~~(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Section D

32. Conditions D.1.5 and D.4.5 (Volatile Organic Compounds (VOC)) the last sentence has been removed, it is unnecessary since the permit contains Condition C.10 Compliance Requirements.

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. ~~IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.~~

D.4.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.4.1 and D.4.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. ~~IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.~~

33. Condition D.1.6 (VOC Emissions) "most recent" has been taken out for clarity and D.1.6(b) has been deleted since Condition D.1.2(b) has been rescinded as follows:

D.1.6 VOC Emissions

- (a) Compliance with Condition D.1.2(a) shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the ~~most recent~~ month.
- (b) ~~Compliance with Condition D.1.2(b) shall be demonstrated within 30 days of the end of each day based on the total volatile organic compound usage for the most recent day.~~

34. Conditions D.1.7 and D.4.7 (Particulate Matter (PM)) has had language added to clarify which condition requires that the filters are operated for compliance.

D.1.7 Particulate Matter (PM)

In order to comply with Condition D.1.3, ~~t~~he dry filters for PM control shall be in operation at all times when EU-01A, EU-01B, EU-01C, and EU-01E are in operation.

D.4.7 Particulate Matter (PM)

In order to comply with Condition D.4.3, ~~t~~he dry filters for PM control shall be in operation at all times when EU-04 are in operation.

35. Conditions D.1.12, D.2.8, D.3.9 and D.4.10 (Reporting Requirements) have been revised to require that these reports should be certified by the responsible official. Part 70 requires all reports to be certified. EPA has also requested this change. Also Conditions D.1.1(b) and D.3.6 require only record keeping and not reporting so Conditions D.1.10 and D.3.9(b) have been revised and Quarterly Report Form has been deleted as follows:

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions ~~D.1.1(b) and~~ D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.2.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.3.9 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) ~~A semi-annual summary of the information to document compliance with Condition D.3.6 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six-month period being reported. The report submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

- (be) The Permittee shall certify, on the form provided, that natural gas was fired in each of the boilers at all times during each quarter. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.

D.4.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
Part 70 Monthly Report

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015
Facility: EU-01G
Parameter: Daily Volume Weighted Average VOC Content
Limit: 3.5 pounds of VOC per gallon less water as calculated by:

$c = n$
 $3 \text{ coating } c \text{ (gal)} \times \text{VOC content of } c \text{ (lbs/gal, less water)}$
 $c = 1$
 $c = n$
 $3 \text{ coating } c \text{ (gal)}$
 $c = 1$

Month: Year:

Day	VOC Content	Day	VOC Content
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		no. of deviations	

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on:

Submitted by:
Title/Position:
Signature:
Date:
Phone:

Cummins Engine Company, Inc. Plant #1
Columbus, Indiana
Permit Reviewer: MLK/MES

Page 33 of 44
T 005-7433-00015

~~Attach a signed certification is complete this report.~~

36. Conditions D.2.6 and D.3.7 (Visible Emission Notations) paragraph (e), language about failure to take response steps has been added. This clarifies that not taking a response step will be considered a permit violation. Conditions D.2.6 and D.3.7 have had wording added as followed:

D.2.6 and D.3.7 Visible Emissions Notations

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. **Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.**
37. In Condition D.3.4 and D.11.2 (Sulfur Dioxide (SO₂)) language has been added to specify how compliance shall be demonstrated. 326 IAC 7-1 is not federally enforceable, therefore the condition should state that.

D.3.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ emissions from each of the four (4) boilers, EU-03A, EU-03B, EU-03C and EU-03D shall not exceed five tenths (0.5) pounds per million British thermal units heat input while combusting fuel oil. **Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.**

38. In Condition D.3.8, the reference to Condition D.3.1 has been added as follows:

D.3.8 Record Keeping Requirements

- (a) To document compliance with Conditions **D.3.1** and D.3.4, the Permittee shall maintain records in accordance with (1) through (6) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring

instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.3.7, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts once per shift.
 - (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
39. Conditions D.5.2 and Condition D.5.3 (Volatile Organic Compounds (VOC)) for insignificant activities have been clarified to indicate which activities are subject to which rule as follows:

D.5.2 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) **for cold cleaning operations constructed after January 1, 1980**, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.5.3 Volatile Organic Compounds (VOC)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility **construction of which commenced after July 1, 1990**, shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The

drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility **construction of which commenced after July 1, 1990**, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
40. Effective January 1, 2001, the name of the Office of Air Management (OAM) has been changed to the Office of Air Quality (OAQ) throughout the permit.

Forms

- 41. Emergency/Deviation Occurrence Report Form is now called the Emergency Occurrence Report. All references to deviations have been removed. These forms should be sent to the Compliance Branch, not the Compliance Data Section. IDEM has negotiated with EPA on the reporting of emergencies. They agree to allow the 2 day notification to come in without the responsible official certification as long as the emergencies are included in the Quarterly Deviation and Compliance Monitoring Report. That report is certified by the responsible official, therefore will comply with the Part 70 requirement to have all reports certified.
- 42. The monthly and quarterly reports will now need to be certified by the responsible official, therefore the last line in each of these reports have been changed from ~~"A certification is not required for this report."~~ to **"Attach a signed certification to complete this report"**.

43. The Quarterly or Semi-Annual Compliance Monitoring Report, is now called the Quarterly Deviation and Compliance Monitoring Report. The form now requires the source to not only report that there were deviations, but to also include the probable cause and the response steps taken. IDEM is no longer requiring sources to report deviations in ten days, therefore every source will need submit this report quarterly. For sources with an applicable requirement which gives an alternate schedule for reporting deviations, those deviations will not need to be reported quarterly, but instead should be reported according to the schedule in the applicable requirement.
44. The Natural Gas-Fired Boiler Certification now requires certification by the responsible official and has been changed as follows:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
~~COMPLIANCE DATA SECTION~~ **BRANCH**
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

PART 70 OPERATING PERMIT
~~EMERGENCY/DEVIATION~~ **OCCURRENCE REPORT**

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No. 2

- 9 4.** This is an emergency as defined in 326 IAC 2-7-1(12)
☒ The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
☒ The Permittee must submit notice in writing by mail or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

- ~~9 2.~~ This is a deviation, reportable per 326 IAC 2-7-5(3)(C)
~~☒~~ The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency/~~Deviation~~:

Describe the cause of the Emergency/~~Deviation~~:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/ Deviation started:
Date/Time Emergency/ Deviation was corrected:
Was the facility being properly operated at the time of the emergency/ deviation ? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/ deviation :
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

Cummins Engine Company, Inc. Plant #1
Columbus, Indiana
Permit Reviewer: MLK/MES

Page 41 of 44
T 005-7433-00015

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY SEMI-ANNUAL DEVIATION and COMPLIANCE MONITORING REPORT

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the ~~compliance monitoring~~ requirements stated in this permit. This report shall be submitted **quarterly semi-annually** based on a calendar year. Any deviation from the ~~compliance monitoring~~ requirements, and the date(s) of each deviation, **the probable cause of the deviation, and the response steps taken** must be reported. ~~with the following exceptions: Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.~~ Additional pages may be attached if necessary. ~~This form can be supplemented by attaching the Emergency/Deviation Occurrence Report.~~ If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

~~Compliance Monitoring~~ **Permit** Requirement (specify permit condition #)

Date of each Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

~~Compliance Monitoring~~ **Permit** Requirement (specify permit condition #)

Date of each Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Compliance Monitoring Permit Requirement (specify permit condition #)	
Date of each Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Compliance Monitoring Permit Requirement (specify permit condition #)	
Date of each Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Compliance Monitoring Permit Requirement (specify permit condition #)	
Date of each Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
NATURAL GAS-FIRED BOILER CERTIFICATION**

Source Name: Cummins Engine Company, Inc. Plant #1
Source Address: 1000 5th Street, Columbus, Indiana 47201
Mailing Address: P.O. Box 3005, Columbus, Indiana 47202-3005
Part 70 Permit No.: T 005-7433-00015

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Report period

Beginning:

Ending:

Boiler Affected

Alternate Fuel

Days burning alternate fuel

From

To

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is ~~not~~ required for this report.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name:	Cummins Engine Company, Inc. Plant #1
Source Location:	1000 5th Street, Columbus, Indiana 47201
County:	Bartholomew
SIC Code:	3519
Operation Permit No.:	T 005-7433-00015
Permit Reviewer:	Mark L. Kramer

The Office of Air Management (OAM) has reviewed a Part 70 permit application from Cummins Engine Company Inc., Plant #1 relating to the operation of a manufacturing, testing, and painting internal combustion engines source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) N-14 painting line, known collectively as EU-01, consisting of the following equipment:
 - (1) One (1) primer application booth, known as EU-01A, installed in 1985, equipped with one (1) fixed spray gun system with 24 spray guns and dry filters for overspray control, exhausted to Stacks P1 and P2, capacity: 30 engines per hour.
 - (2) One (1) top coat application booth, known as EU-01B, installed in 1960, equipped with one (1) fixed spray gun system with 24 spray guns and dry filters for overspray control, exhausted to Stacks T1 and T2, capacity: 30 engines per hour.
 - (3) One (1) final touch-up booth, known as EU-01C, installed in 1960, equipped with two (2) fixed conventional air applicators and aerosol cans, exhausted to Stacks TU1 and TU2, dry filters for overspray control, capacity: 30 engines per hour.
 - (4) One (1) toluene solvent wiping operation, known as EU-01D, installed in 1960, exhausted to the general ventilation, capacity: 30 engines per hour.
 - (5) One (1) Mod spray booth, known as EU-01E, installed in 1963, equipped with one (1) conventional air applicator, exhausted to Stack MOD, capacity: 2 engines per hour.
- (b) Twelve (12) endurance test cells, known as EU-02A, installed in 1974, exhausted to Stacks 101-105, 601-603, and 1-4, maximum output 500 horsepower and total heat input of 40.48 million British thermal units per hour, capacity: 292.8 gallons of fuel per hour, total.
- (c) Eighteen (18) production test cells, known as EU-02B, installed in 1974, exhausted to stacks 106, 107, 201-207, 301-303, 401-403, 501-503 and 1-4, maximum output 500 horsepower and

total heat input of 41.58 million British thermal units per hour, capacity: 300.6 gallons of fuel per hour, total.

- (d) Two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, with a heat input rating of 0.008 million British thermal units per hour and an output rating of 550 horsepower, capacity: 22 engines per hour.
- (e) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03A, installed in 1960, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (f) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03B, installed in 1961, exhausted to Stack B1, rated at 36 million British thermal units per hour.
- (g) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03C, installed in 1951, exhausted to Stack B2, rated at 21 million British thermal units per hour.
- (h) One (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03D, installed in 1985, exhausted to Stack B2, rated at 50 million British thermal units per hour.
- (i) One (1) heavy duty robotic paint line, known as EU-04, installed in 1997, exhausted to Stacks RB, MB-1 and MB-2, capacity: 20 engines per hour, consisting of:
 - (1) One (1) robotic paint booth, equipped with electrostatic application system and dry filters for overspray control, and
 - (2) One (1) manual paint booth, equipped with electrostatic application system and dry filters for overspray control.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 British thermal units per hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 British thermal units per hour.
- (c) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

- (d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (e) The following VOC and HAP storage containers:

Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (f) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (g) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (h) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (i) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (j) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or;
 - (2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (k) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.
- (l) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.
- (m) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (n) Noncontact cooling tower systems with either of the following:

Forced and induced draft cooling tower system not regulated under a NESHAP.
- (o) Quenching operations used with heat treating processes.
- (p) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (q) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.
- (r) Paved and unpaved roads and parking lots with public access.

- (s) Asbestos abatement projects regulated by 326 IAC 14-10.
- (t) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (u) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (v) Emergency generators as follows:

Diesel generators not exceeding 1,600 horsepower.
- (w) Other emergency equipment as follows:

Stationary fire pumps.
- (x) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) OP 03-03-81-0063, issued on April 5, 1977,
- (b) Exemption letter, issued on April 5, 1977,
- (c) OP 03-05-87-0109, issued on June 13, 1983,
- (d) PC (03) 1594, issued on November 6, 1985,
- (e) OP 03-05-87-0129, issued on March 4, 1986,
- (f) OP 03-05-91-0144, issued on October 6, 1988,
- (g) OP 03-05-91-0145, issued on October 6, 1988,
- (h) OP 03-05-91-0146, issued on October 6, 1988,
- (i) OP 03-05-91-0147, issued on October 6, 1988,
- (j) OP 03-05-91-0148, issued on October 6, 1988,
- (k) OP 03-05-91-0149, issued on October 6, 1988,
- (l) OP 03-05-91-0150, issued on October 6, 1988,
- (m) CP 005-5350-00015, issued on January 14, 1997; and

(n) A 005-8701-00015, issued on May 27, 1998.

All conditions from previous approvals were incorporated into this Part 70 permit except the following:

- (a) PC (03) 1594, issued on November 6, 1985:

Condition No. 1a: The quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions shall not exceed 37 tons per year.

Reason not incorporated: Only the primer booth (EU-01A) and boiler (EU-03D) were constructed in 1985 and EU-01A should be limited to less than 38.8 tons per twelve (12) consecutive month period accounting for the full potential of the boiler of 1.20 tons per year ($40 - 1.20 = 38.8$). The other two (2) booths are not limited since they were constructed in 1960.

- (b) OP 03-05-87-0129, issued on March 4, 1986:

Condition No. 5: The quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions shall not exceed 61 tons per year (37 tons per year from the new operation and 24 tons per year from the existing operation).

Reason not incorporated: Only the primer booth (EU-01A) and boiler (EU-03D) were constructed in 1985 and EU-01A should be limited to less than 38.8 tons per twelve (12) consecutive month period accounting for the full potential of the boiler of 1.20 tons per year ($40 - 1.20 = 38.8$). The other two (2) booths are not limited since they were constructed in 1960.

- (c) OP 03-05-91-0144, issued on October 6, 1988:

Condition No. 6: The quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions from the primer coat spray booth shall not exceed 3.3 tons per month (39.6 tons per twelve (12) consecutive month period).

Reason not incorporated: Only the primer booth (EU-01A) and boiler (EU-03D) were constructed in 1985 and EU-01A should be limited to less than 38.8 tons per twelve (12) consecutive month period accounting for the full potential of the boiler of 1.20 tons per year ($40 - 1.20 = 38.8$). The other two (2) booths are not limited since they were constructed in 1960.

- (d) OP 03-05-91-0146, issued on October 6, 1988, OP 03-05-91-0147, issued on October 6, 1988, OP 03-05-91-0148, issued on October 6, 1988, OP 03-05-91-0149, issued on October 6, 1988, and OP 03-05-91-0150, issued on October 6, 1988.

In all permits, Condition 4: Limited SO₂ emissions from the diesel engine test cells to 6.0 pounds per million British thermal units heat input.

Reason not incorporated: The rule applicability was re-evaluated and since the diesel test cells only burn distillate oil, then pursuant to 326 IAC 7-1.1-2(a)(3), the sulfur dioxide emissions should be limited to five tenths (0.5), not six (6.0), pounds per million British thermal units heat input.

(d) CP 005-5350 issued January 14, 1997:

Conditions Nos. 10 and 14: Condition 10 stated that the volatile organic compounds (VOCs) emitted from the surface coating operation (EU-04), including clean-up activities shall be limited to 39.5 tons per 365-day period, rolled on a daily basis. And Condition 14 stated that the total diesel fuel delivered to test stands, EU-TS1 and EU-TS2, shall not exceed 0.95 gallons per day, equivalent to 0.15 pounds per day. Therefore, the PSD rules, 326 IAC 2-2 and 40 CFR 52.21 will not apply.

Reason not incorporated: These conditions have been revised to include the combined VOC emissions from EU-04, EU-TS1 and EU-TS2 and change the time from daily to twelve (12) consecutive month period as follows.

The VOC delivered to the applicators of the heavy duty robotic paint line, EU-04, shall not exceed 39.5 tons of VOC per twelve (12) consecutive month period, including coatings, dilution solvents, and cleaning solvents. The two (2) test stands, EU-TS1 and EU-TS2, shall not exceed 346.75 gallons of diesel fuel per twelve (12) consecutive month period, equivalent to 0.027 tons of VOC per twelve (12) consecutive month period. These usage limits are required to limit the total VOC emissions from the 1997 modifications to less than the PSD significant level of forty (40) tons of VOC per year.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 10, 1996. Additional information was received on July 26, 1999, September 8, 18, 27, and 28, 2000.

A notice of completeness letter was mailed to the source on January 13, 1997.

Emission Calculations

See pages 1 through 12 of 12 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable

until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	493
PM ₁₀	493
SO ₂	432
VOC	665
CO	428
NO _x	1,840

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
1,3 Butadiene	0.0152
Acetaldehyde	0.298
Acrolien	0.0360
Arsenic	0.00326
Benzene	0.364
Beryllium	0.00244
Cadmium	0.00244
Chromium	0.00244
Cobalt	4.48
Dichlorobenzene	0.000978
Ethyl Benzene	4.87
Formaldehyde	0.520
Glycol Ethers	231.3
Hexamethylene	0.139
Hexane	2.76
Lead	0.00734
Manganese	0.00488
Mercury	0.00244
MIBK	29.9
Nickel	4.46

HAPs	Potential To Emit (tons/year)
PAH	0.0653
Selenium	0.0122
Toluene	43.0
Xylene	12.6
TOTAL	333

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1998 data from the AIRS Facility Subsystem Quick Look Report emission data and applicant supplied HAP emissions.

Pollutant	Actual Emissions (tons/year)
PM	7.59
PM ₁₀	7.59
SO ₂	13.6
VOC	46.4
CO	132
NO _x	221
1,3 Butadiene	0.00193
Acetaldehyde	0.0379
Acrolin	0.00457
Benzene	0.0461

Pollutant	Actual Emissions (tons/year)
Cobalt Compounds	0.410
Formaldehyde	0.05833
Glycol Ethers	25.36
Nickel Compounds	0.0013
PAH	0.00419
Toluene	5.03
Xylene	5.07

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 Operating Permit.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
EU-01A (1985)	0.049	0.049	0.00	38.8	0.00	0.00	31.7
EU-01B (1960)	0.160	0.160	0.00	133	0.00	0.00	132
EU-01C (1960)	0.003	0.003	0.00	5.99	0.00	0.00	2.62
EU-01D (1960)	0.000	0.000	0.00	34.4	0.00	0.00	36.4
EU-01E (1963)	0.018	0.018	0.00	13.8	0.00	0.00	13.6
EU-02A (1974)	54.5	54.5	50.9	62.1	167	775	0.689
EU-02B (1974)	56.0	56.0	52.3	63.2	171	795	0.707
EU-TS1 & EU-TS2	0.007	0.007	0.007	0.009	0.0225	0.105	0.00009
EU-03A (1960)	2.25	2.25	80.1	0.867	13.2	22.5	0.304
EU-03B (1961)	2.25	2.25	80.1	0.867	13.2	22.5	0.304
EU-03C (1951)	1.32	1.32	46.7	0.506	7.72	13.1	0.177
EU-03D (1985)	1.13	1.13	<40.0	1.20	18.4	11.3	0.786
EU-04 (1997)	0.084	0.084	0.00	39.5	0.00	0.00	37.2
Insignificant Activities	9.7	10.5	2.5	10.7	9.3	51.7	2.5
Total Emissions	128	128	<353	405	400	1,691	258

Only the primer booth (EU-01A) and boiler (EU-03D) were constructed in 1985 and EU-01A should limited to less than 38.8 tons per twelve (12) consecutive month period accounting for the full potential of the boiler of 1.20 tons per year.

The sulfur dioxide emissions from boiler, EU-03D, have been limited to less than forty (40) tons per year. This limit is equivalent to a No. 2 fuel oil limit of less than 1,126,800 gallons per twelve (12) consecutive month period. For purposes of this SO₂ limit, each million cubic feet of natural gas combusted in this dual fuel boiler shall be equivalent to 8.45 gallons of No. 2 fuel oil.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Bartholomew County has been classified as attainment or unclassifiable for remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

- (a) The three (3) natural gas-fired boilers with No. 2 fuel oil backup, known as EU-03A, EU-03B and EU-03C, installed in 1960, 1961 and 1951, respectively, are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40), Subpart D, due to the dates of construction are prior to August 17, 1971 and therefore are also not subject to the requirements of Subpart Da, Db and Dc.
- (b) The one (1) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03D installed in 1985 is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc since it was constructed before the June 9, 1989 applicability date. The boiler is also not subject to the requirements of New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40b, Subpart Db) because although it was constructed after the June 19, 1984 applicability date, the boiler is not rated at greater than one hundred (100) million British thermal units per hour.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source. The degreaser is not subject to 40 CFR 63, Subpart T since it does not use any halogenated solvents.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

- (a) This existing major PSD source was major at the promulgation date of the PSD rules in 1978 because EU-01B, EU-01C and EU-01D, installed in 1960 as well as EU-02A and EU-02B, installed in 1974, due to the NO_x emissions that exceeded 250 tons per year.

Pursuant to OP 03-03-81-0063, issued on April 5, 1977, three (4) paint booths, equipped with dry filters, identified as stacks 4, 5, 6 and 12 were included.

Pursuant to OP 03-05-87-0109, issued on June 13, 1983, one (1) paint spray booth, equipped with dry filters, unidentified, was included.

Pursuant to PC (03) 1594, issued on November 6, 1985, three (3) paint spray booths, equipped with waterwash, unidentified, were included as well as a boiler rated at 50 million British thermal units per hour. This permit stated that the quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions shall not exceed 37 tons per year. After extensive reconstruction of the construction dates of the paint booths and the correspondence, IDEM has determined that OP 03-05-87-0129, issued on March 4, 1986 attempt to correct and OP 03-05-91-0144 corrected the inference that the 37 ton per year VOC emission limit applied to all three (3) paint booths.

Pursuant to OP 03-05-87-0129, issued on March 4, 1986, Condition No. 5 stated that the quantity of paint usage and solvent content, as percent volatile organic compounds (VOCs) by weight, be such that the VOC emissions shall not exceed 61 tons per year (37 tons per year from the new operation and 24 tons per year from the existing operation). However, the 24 tons per year VOC limit for the existing operation was improper because the booths predated PSD applicability as stated in correspondence dated November 14, 1985 from William Bahnsen of Cummins to Frank Profit of Air Pollution Control Division and shown on a May 25, 1970 Acoustic Survey plant diagram.

Cummins Engine Company, Inc. Plant #1
Columbus, Indiana
Permit Reviewer: MLK/MES

Page 14 of 26
T 005-7433-00015

- (b) Pursuant to OP 03-05-91-0144, issued on October 6, 1988, three (3) paint spray booths (primer, finish and touch-up), equipped with waterwash, identified as 1, 2 and 3 stated that the VOC emissions from the primer coat spray booth shall not exceed 3.3 tons per month (39.6 tons per twelve (12) consecutive month period). This VOC limit on the primer booth (EU-01A) was necessary in order to avoid the applicability of 326 IAC 2-2. The VOC limit has been recalculated to be 38.8 tons per twelve (12) consecutive month period to account for the potential VOC emissions of 1.20 tons per year from boiler (EU-03D), also installed in 1985.

The PM and PM₁₀ emissions from EU-01A will also be limited to less than twenty five (25) and fifteen (15) tons per twelve (12) consecutive month period, respectively to avoid applicability of 326 IAC 2-2.

- (c) In order to avoid the applicability of 326 IAC 2-2, the sulfur dioxide emissions from boiler EU-03D, installed in 1985, have been limited to less than forty (40) tons per year. This limit is equivalent to a No. 2 fuel oil limit of less than 1,126,800 gallons per twelve (12) consecutive month period. For purposes of this SO₂ limit, each million cubic feet of natural gas combusted in this dual fuel boiler shall be equivalent to 8.45 gallons of No. 2 fuel oil.
- (d) Pursuant to CP 005-5350-00015, issued on January 14, 1997, the heavy duty robotic paint line, EU-04, shall not exceed 39.5 tons of VOC per twelve (12) consecutive month period delivered to the applicators.

The two (2) test stands, EU-TS1 and EU-TS2, shall not exceed 346.75 gallons of diesel fuel per twelve (12) consecutive month period, equivalent to 0.027 tons of VOC per twelve (12) consecutive month period. These usage limits are required to limit the total VOC emissions from the 1997 modifications to less than the PSD significant level of forty (40) tons of VOC per year.

The following PM and PM₁₀ limits are required in order to avoid the applicability of 326 IAC 2-2. The total PM and PM₁₀ emissions from EU-04, EU-TS1 and EU-TS2, all installed in 1997, shall be limited to less than twenty five (25) and fifteen (15) tons per twelve (12) consecutive month period, respectively.

326 IAC 2-4.1-1 (New Source Air Toxics Control)

This source was constructed prior to July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1-1 do not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of all criteria pollutants. Pursuant to this rule, the owner/ operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 5-1 (Opacity Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

Under no circumstance shall the source emit particulate matter to the extent that some visible portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from surface coating processes EU-01A, EU-01B, EU-01C, EU-01D, EU-01E and EU-04 shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the applicable equation depending upon process weight rate:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times these surface coating processes are in operation, in order to comply with these limits.

326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating)

- (a) Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (c)), particulate emissions from the natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03C, rated at 21 million British thermal units per hour, constructed in 1951 was in existence before September 21, 1983, and thus shall be limited by the following equation:

$$P_t = \frac{C * a * h}{76.5 * Q^{0.75} * N^{0.25}} \quad P_t = \text{lbs of PM emitted per MMBtu heat input}$$

where

- C = maximum ground level concentration (default = 50 u/m³)
- a = plume rise factor (default = 0.67 for Q less than 1,000 MMBtu/hr)
- h = stack height in feet
- Q = total source maximum operating capacity

N = number of stacks in fuel burning operation

$$Pt = \frac{50 \text{ u/m}^3 * 0.67 * 89}{76.5 * 21^{0.75} * 1^{0.25}} = 3.97 \text{ pounds of PM emitted per MMBtu heat input}$$

Pursuant to 326 IAC 6-2-3(d), particulate matter emissions shall not exceed 0.8 pounds per million British thermal units.

As derived from the spreadsheet for the boiler combustion on page 12 of 12 of Appendix A, the PM emissions on the worst case fuel (oil) from the boiler are 1.31 tons per year for the 21 million British thermal units per hour boiler. This is equivalent to 0.300 pounds per hour of particulate matter per 21 million British thermal units heat input or 0.014 pounds per million British thermal unit. Therefore, the boiler complies with the rule.

- (b) Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (c)), particulate emissions from the natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03A, rated at 36 million British thermal units per hour, constructed in 1960 was in existence before September 21, 1983, and thus shall be limited by the equation in (a) as follows:

$$Pt = \frac{50 \text{ u/m}^3 * 0.67 * 89}{76.5 * 57^{0.75} * 2^{0.25}} = 1.58 \text{ pounds of PM emitted per MMBtu heat input}$$

Pursuant to 326 IAC 6-2-3(d), particulate matter emissions shall not exceed 0.8 pounds per million British thermal units.

As derived from the spreadsheet for the boiler combustion on page 12 of 12 of Appendix A, the PM emissions on the worst case fuel (oil) from the boiler (EU-03A) are 2.25 tons per year for the 36 million British thermal units per hour boiler. This is equivalent to 0.514 pounds per hour of particulate matter per 36 million British thermal units heat input or 0.014 pounds per million British thermal unit. Therefore, this boiler complies with the rule.

- (c) Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (c)), particulate emissions from the natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03B, rated at 36 million British thermal units per hour, constructed in 1961 was in existence before September 21, 1983, and thus shall be limited by the equation in (a) as follows:

$$Pt = \frac{50 \text{ u/m}^3 * 0.67 * 89}{76.5 * 93^{0.75} * 2^{0.25}} = 1.09 \text{ pounds of PM emitted per MMBtu heat input}$$

Pursuant to 326 IAC 6-2-3(d), particulate matter emissions shall not exceed 0.8 pounds per million British thermal units.

As derived from the spreadsheet for the boiler combustion on page 12 of 12 of Appendix A, the PM emissions on the worst case fuel (oil) from the boiler (EU-03B) are 2.25 tons per year for the 36 million British thermal units per hour boiler. This is equivalent to 0.514 pounds per hour of particulate matter per 36 million British thermal units heat input or 0.014 pounds per million British thermal unit. Therefore, this boiler complies with the rule.

The natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03D, rated at 50 million British thermal units per hour, constructed in 1985, installed after the September 21, 1983 applicability date, is subject to the requirements of this rule that limits PM emissions as follows:

$$P_t = \frac{1.09}{Q^{0.26}}$$

Where:

P_t = Pounds of particulate matter emitted per million British thermal units.

Q = Total source maximum operating capacity rating in million British thermal units heat input. The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used.

$$P_t = \frac{1.09}{143^{0.26}} = 0.300 \text{ pounds per million British thermal units.}$$

The worst case potential PM emissions on oil for this boiler rated at 50 million British thermal units per hour are 3.13 tons per year or 0.014 pounds per million British thermal units and therefore complies with this rule.

326 IAC 7-1.1 (Sulfur dioxide emissions limitations)

- (a) Pursuant to 326 IAC 7-1.1-2, the sulfur dioxide emissions from the twelve (12) endurance test cells, known as EU-02A, the eighteen (18) production test cells, known as EU-02B, and the four (4) natural gas-fired boiler with No. 2 fuel oil backup, known as EU-03A, EU-03B, EU-03C, and EU-03D, are each limited to five tenths (0.5) pounds per million British thermal units heat input.

All of these test cells and boilers comply with this rule on No. 2 fuel oil.

- (b) Since the potential SO_2 emissions from the two (2) diesel fuel reciprocating internal combustion engine test stands, known as EU-TS1 and EU-TS2, are less than twenty-five (25) tons per year, this rule is not applicable to these test stands.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings delivered to the applicators at the spray booths, known as EU-01A, EU-01B, EU-01E and EU-04 shall be limited to 3.5 pounds of VOCs per gallon of coating less water for extreme performance coatings. EU-01D uses only clean-up solvents. Each of the coatings used in these booths comply with the rule based on the MSDS for each coating.
- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings delivered to the applicators at the spray booth, known as EU-01C shall be limited to 3.5 pounds of VOCs per gallon of coating less water for extreme performance coatings on a daily volume weighted average.

- (c) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

326 IAC 9-1 (CO Emission Limits)

This source does not engage in petroleum refining, ferrous metal smelting, or refuse incineration. Therefore, the requirements of 326 IAC 9-1 do not apply.

326 IAC 10-1 (NO_x Control In Clark and Floyd Counties)

Since this source is not in Clark or Floyd counties, the requirements of 326 IAC 10-1 do not apply.

Insignificant Activities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the trimming, grinding and machining operations shall not exceed the allowable emission rate of particulate matter per hour as determined by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 8-3-2 (Cold Cleaner Operations)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit

(100EF));

- (B) The solvent is agitated; or
 - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

326 IAC 20-6 (Halogenated Solvent Cleaning)

The degreaser is not subject to this rule and 40 CFR 63 Subpart T since it does not use any

halogenated solvents.

Testing Requirements

Standard emission factors were employed for emission calculations for all test cells and test stands as well as boilers and therefore, no testing is being required.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (a) The four (4) boilers have applicable compliance monitoring conditions as specified below:

Visible emissions notations of the boiler stack exhausts, known as B1 and B2, shall be performed once per working shift during normal daylight operations when burning No. 2 fuel oil. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-7 (Part 70), 326 IAC 5-1 (Opacity Emissions Limitations), 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating) and 326 IAC 6-2-4 (Emissions limitations for facilities specified in 326 IAC 6-2-1(d)).

- (b) The seven (7) engine test cells have applicable compliance monitoring conditions as specified below:

Visible emissions notations of the engine test cells stack exhausts, known as 1 - 4 and 601 - 603. shall be performed once per working shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated

continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-7 (Part 70) and 326 IAC 5-1 (Opacity Emissions Limitations).

- (c) The remaining twenty-three (23) engine test cells have applicable compliance monitoring conditions as specified below:

In lieu of visible emission notations, the source has requested that continuous opacity monitoring devices be utilized to show compliance with 326 IAC 5-1 for engine test cells stack exhausts, known as 101 -107, 201 - 207, 301 - 303, 401 - 403 and 501 - 503.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-7 (Part 70) and 326 IAC 5-1 (Opacity Emissions Limitations).

- (d) The prime and top coat application booths, final touch-up booth and the robotic and manual paint booths have applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the prime and top coat application booths, the final touch-up booth, as well as the robotic and manual paint booths stack exhausts, known as P1 and P2, T1 and T2, TU1 and TU2, RB and MB-1 and MB-2, respectively, the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary to ensure compliance with 326 IAC 5-1 (Opacity Emissions Limitations), 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Cummins Engine Company, Inc. Plant #1
Columbus, Indiana
Permit Reviewer: MLK/MES

Page 25 of 26
T 005-7433-00015

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached pages 2 through 11 of 12 of Appendix A for detailed air toxic calculations.

Conclusion

The operation of this manufacturing, testing, and painting internal combustion engines source shall be subject to the conditions of the attached proposed **Part 70 Permit No. T 005-7433-00015**.

Appendix A: Summary of Potential Emissions Before Controls

Page 1 of 12 TSD App A

Company Name: Cummins Engine Company, Inc. Plant #1
 Address City IN Zip: 1000 5th Street, Columbus, IN 47202
 Part 70: T 005-7433
 Plt ID: 005-00015
 Reviewer: Mark L. Kramer
 Date: December 10, 1996

Point	Source	Potential PM (tons/yr)	Potential PM-10 (tons/yr)	Potential NOx (tons/yr)	Potential CO (tons/yr)	Potential SO2 (tons/yr)	Potential VOC (tons/yr)	Potential HAPs (tons/yr)
	Significant Emission Units							
EU-01A (c1985)	One (1) Primer Spray Booth	89.1	89.1	0.00	0.00	0.00	70.9	56.7
EU-01B (c1960)	One (1) Top Coat Spray Booth	160	160	0.00	0.00	0.00	133	132
EU-01C (c1960)	One (1) Final Touch-Up Spray Booth	3.43	3.43	0.00	0.00	0.00	5.99	2.62
EU-01D (c1960)	One (1) Toluene Wiping Booth	0.00	0.00	0.00	0.00	0.00	34.4	36.4
EU-01E (c1963)	One (1) MOD Spray Booth	17.8	17.8	0.00	0.00	0.00	13.8	13.6
EU-02A (c1974)	Twelve (12) Endurance Engine Test Cells	54.5	54.5	775	167	50.9	62.1	0.689
EU-02B (c1974)	Eighteen (18) Production Engine Test Cells	56.0	56.0	795	171	52.3	63.7	0.707
EU-TS1 and TS2 (c1997)	Two (2) Engine Test Cells	9.08	9.08	129	27.8	8.49	10.3	0.115
EU-03A (c1960)	One (1) Boiler @ 36.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil)	2.25	2.25	22.5	13.2	80.1	0.867	0.304
EU-03B (c1961)	One (1) Boiler @ 36.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil)	2.25	2.25	22.5	13.2	80.1	0.867	0.304
EU-03C (c1951)	One (1) Boiler @ 21.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil)	1.32	1.32	13.1	7.72	46.7	0.506	0.177
EU-03D (c1985)	One (1) Boiler @ 50.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil)	3.13	3.13	31.3	18.40	111	1.20	0.786
EU-04 (c1997)	Next Generation Spray Booth	83.8	83.8	0.00	0.00	0.00	257.0	88.8
Totals:		482.7	482.7	1788.4	418.3	429.6	654.6	333.3
		Potential PM (tons/yr)	Potential PM-10 (tons/yr)	Potential NOx (tons/yr)	Potential CO (tons/yr)	Potential SO2 (tons/yr)	Potential VOC (tons/yr)	Potential HAPs (tons/yr)

(c1991) indicates construction during 1991, dates for units may vary

Appendix A: Summary of Limited Emissions After Controls

Company Name: Cummins Engine Company, Inc. Plant #1
 Address City IN Zip: 1000 5th Street, Columbus, IN 47202
 Part 70: T 005-7433
 Plt ID: 005-00015
 Reviewer: Mark L. Kramer
 Date: December 10, 1996

Point	Source	Limited PM (tons/yr)	Limited PM-10 (tons/yr)	Limited NOx (tons/yr)	Limited CO (tons/yr)	Limited SO2 (tons/yr)	Limited VOC (tons/yr)	Limited HAPs (tons/yr)
	Significant Emission Units							
EU-01A (c1985)	One (1) Primer Spray Booth (limited to 38.8 tons per year of VOC)	0.0490	0.0490	0.00	0.00	0.00	38.8	31.00
EU-01B (c1960)	One (1) Top Coat Spray Booth	0.1600	0.1600	0.00	0.00	0.00	133.0	132.0
EU-01C (c1960)	One (1) Final Touch-Up Spray Booth	0.003430	0.003430	0.00	0.00	0.00	5.990	2.620
EU-01D (c1960)	One (1) Toluene Wiping Booth	0.00	0.00	0.00	0.00	0.00	34.40	36.40
EU-01E (c1963)	One (1) MOD Spray Booth	0.0178	0.0178	0.00	0.00	0.00	13.8	13.6
EU-02A (c1974)	Twelve (12) Endurance Engine Test Cells	54.5	54.5	775	167	50.9	62.1	0.689
EU-02B (c1974)	Eighteen (18) Production Engine Test Cells	56.0	56.0	795	171	52.3	63.7	0.707
EU-TS1 and TS2 (c1997)	Two (2) Engine Test Cells (limited to 0.95 gallons of diesel fuel per day)	0.00737	0.00737	0.105	0.0225	0.00688	0.00850	0.0000929
EU-03A (c1960)	One (1) Boiler @ 36.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil)	2.25	2.25	22.5	13.2	80.1	0.867	0.304
EU-03B (c1961)	One (1) Boiler @ 36.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil)	2.25	2.25	22.5	13.2	80.1	0.867	0.304
EU-03C (c1951)	One (1) Boiler @ 21.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil)	1.32	1.32	13.1	7.72	46.7	0.506	0.177
EU-03D (c1985)	One (1) Boiler @ 50.0 MMBtu/hr (Worst case of natural gas vs. #2 fuel oil) Limited to 1,126,800 gallons of No. 2 oil or equivalent	1.13	1.13	11.3	18.40	40	1.20	0.786
EU-04 (c1997)	Next Generation Spray Booth (limited to 39.5 tons per year of VOC)	0.0838	0.0838	0.00	0.00	0.00	39.5	37.2
Totals:		117.8	117.8	1639.5	390.5	350.1	394.7	255.8
		Limited PM (tons/yr)	Limited PM-10 (tons/yr)	Limited NOx (tons/yr)	Limited CO (tons/yr)	Limited SO2 (tons/yr)	Limited VOC (tons/yr)	Limited HAPs (tons/yr)

(c1991) indicates construction during 1991, dates for units may vary

Appendix A: State Potential Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47202
Part 70: T 005-7433
Plt ID: 005-00015
Reviewer: Mark L. Kramer
Date: December 10, 1996

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Flash-off (fraction)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/yr)	Particulate Potential (tons/yr)	lb VOC /gal solids	Transfer Efficiency	Material Substrate
EU-01A (Primer Booth)(c1985)																		
Robotic (P1)																		
Beige Aqua-Zen Primer	9.65	61.2%	43.2%	18.0%	50.0%	26.4%	0.0444	30	1.00	3.47	1.74	2.31	55.5	10.1	5.47	6.58	75%	Metal
Clear Aqua-Zen Flow Coat Primer	8.38	73.2%	54.4%	18.7%	54.8%	24.0%	0.0444	30	1.00	3.47	1.57	2.09	50.2	9.17	3.28	6.54	75%	Metal
Black Aqua-Zen Primer	10.1	53.6%	36.6%	17.0%	44.6%	32.1%	0.0444	30	1.00	3.10	1.72	2.29	55.1	10.1	6.86	5.37	75%	Metal
Worst Case:												2.31	55.5	10.1	6.86			
Fixed (P2)																		
Beige Aqua-Zen Primer	9.65	61.2%	43.2%	18.0%	50.0%	26.4%	0.267	30	1.00	3.47	1.74	13.9	333	60.8	65.6	6.58	50%	Metal
Clear Aqua-Zen Flow Coat Primer	8.38	73.2%	54.4%	18.7%	54.8%	24.0%	0.267	30	1.00	3.47	1.57	12.6	301	55.0	39.4	6.54	50%	Metal
Black Aqua-Zen Primer	10.1	53.6%	36.6%	17.0%	44.6%	32.1%	0.267	30	1.00	3.10	1.72	13.8	330	60.3	82.3	5.37	50%	Metal
Worst Case:												13.9	333	60.8	82.3			
EU-01A Worst Case Total:												16.2	389	70.9	89.1			
EU-01B (Topcoat Booth)(C1960)																		
Robotic (T2)																		
Beige Aqua-Zen Semi-Gloss Enamel	9.54	62.3%	44.4%	17.9%	50.9%	26.4%	0.0828	30	1.00	3.47	1.70	4.23	102	18.5	9.8	6.46	75%	Metal
Yellow Aqua Zen Enamel	9.48	62.5%	45.6%	16.9%	51.9%	26.7%	0.0828	30	1.00	3.33	1.60	3.98	95	17.4	9.7	6.00	75%	Metal
94 Titanium Black Aqua Zen Enamel	8.85	67.2%	48.6%	18.6%	51.6%	26.4%	0.0828	30	1.00	3.40	1.65	4.09	98	17.9	7.9	6.25	75%	Metal
Black Semi-Gloss Aqua-Zen Enamel	8.93	67.2%	48.8%	18.5%	52.3%	25.7%	0.0828	30	1.00	3.45	1.65	4.09	98	17.9	8.0	6.41	75%	Metal
Charcol Gray S/G Aqua-Zen	9.04	66.7%	48.9%	17.8%	53.1%	25.4%	0.0828	30	1.00	3.44	1.61	4.01	96.1	17.5	8.18	6.34	75%	Metal
Beige Super Aqua-Zen Enamel	9.66	53.2%	43.2%	10.0%	50.1%	30.9%	0.0828	30	1.00	1.94	0.966	2.40	57.6	10.5	12.3	3.12	75%	Metal
Red Aqua Zen Enamel	8.89	66.4%	46.7%	19.7%	49.8%	26.9%	0.0828	30	1.00	3.49	1.75	4.35	104	19.1	8.13	6.53	75%	Metal
Onan Green Aqua-Zen Air Dry Enamel	8.86	68.4%	51.1%	17.3%	54.3%	24.8%	0.0828	30	1.00	3.36	1.54	3.81	91.5	16.7	7.62	6.19	75%	Metal
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	60.5%	42.8%	17.7%	48.4%	78.3%	0.0828	30	1.00	3.22	1.66	4.13	99.1	18.1	10.1	2.12	75%	Metal
Worst Case:												4.35	104	19.1	12.3			
EU-01B Worst Case Total:												30.5	731	133	160			
EU-01C (Touchup Booth)(c1960)																		
Fixed (TU1, TU2)																		
Beige Aqua-Zen Semi-Gloss Enamel	9.54	62.3%	44.4%	17.9%	50.9%	26.4%	0.00585	30	1.00	3.47	1.70	0.299	7.18	1.31	1.38	6.46	50%	Metal
Yellow Aqua Zen Enamel	9.48	62.5%	45.6%	16.9%	51.9%	26.7%	0.00585	30	1.00	3.33	1.60	0.281	6.74	1.23	1.37	6.00	50%	Metal
94 Titanium Black Aqua Zen Enamel	8.85	67.2%	48.6%	18.6%	51.6%	26.4%	0.00585	30	1.00	3.40	1.65	0.289	6.93	1.27	1.12	6.25	50%	Metal
Black Semi-Gloss Aqua-Zen Enamel	8.93	67.2%	48.8%	18.5%	52.3%	25.7%	0.00585	30	1.00	3.45	1.65	0.289	6.94	1.27	1.13	6.41	50%	Metal
Charcol Gray S/G Aqua-Zen	9.04	66.7%	48.9%	17.8%	53.1%	25.4%	0.00585	30	1.00	3.44	1.61	0.283	6.79	1.24	1.16	6.34	50%	Metal
Beige Super Aqua-Zen Enamel	9.66	53.2%	43.2%	10.0%	50.1%	30.9%	0.00585	30	1.00	1.94	0.966	0.170	4.07	0.74	1.74	3.12	50%	Metal
Red Aqua Zen Enamel	8.89	66.4%	46.7%	19.7%	49.8%	26.9%	0.00585	30	1.00	3.49	1.75	0.308	7.38	1.35	1.15	6.53	50%	Metal
Onan Green Aqua-Zen Air Dry Enamel	8.86	68.4%	51.1%	17.3%	54.3%	24.8%	0.00585	30	1.00	3.36	1.54	0.269	6.47	1.18	1.08	6.19	50%	Metal
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	60.5%	42.8%	17.7%	48.4%	78.3%	0.00585	30	1.00	3.22	1.66	0.292	7.00	1.28	1.43	2.12	50%	Metal
Worst Case:												0.308	7.38	1.35	1.74			
Aerosol (GV)																		
Cummins Yellow Aerosol It	6.06	56.7%	0.00%	56.7%	0.00%	15.0%	0.00825	30	1.00	3.44	3.44	0.850	20.4	3.72	1.42	22.9	50%	Metal
Cummins NTC-444 Black Spray Enamel	5.95	71.8%	0.00%	71.8%	0.00%	15.0%	0.00825	30	1.00	4.27	4.27	1.06	25.4	4.63	0.911	28.5	50%	Metal
Onan Green Aerosol Paint	5.94	59.6%	0.00%	59.6%	0.00%	15.7%	0.00825	30	1.00	3.54	3.54	0.877	21.0	3.84	1.30	22.6	50%	Metal
Cummins International Red Spray Enamel It	5.96	70.8%	0.00%	70.8%	0.00%	19.5%	0.00825	30	1.00	4.22	4.22	1.04	25.1	4.57	0.943	21.6	50%	Metal
Cummins Beige Spray Enamel It	6.16	49.3%	0.00%	49.3%	0.00%	15.0%	0.00825	30	1.00	3.04	3.04	0.752	18.0	3.29	1.69	20.3	50%	Metal
Cummins Charcoal Spray Enamel It	5.94	72.0%	0.00%	72.0%	0.00%	15.0%	0.00825	30	1.00	4.28	4.28	1.06	25.4	4.64	0.900	28.5	50%	Metal
Titanium Black Vinal Toluene Titanium Black Aerosol	6.13	67.6%	0.00%	67.6%	0.00%	20.0%	0.00825	30	1.00	4.14	4.14	1.03	24.6	4.49	1.08	20.7	50%	Metal
Cummins Marine Gray Spray Enamel It	6.17	67.7%	0.00%	67.7%	0.00%	18.5%	0.00825	30	1.00	4.18	4.18	1.03	24.8	4.53	1.08	22.6	50%	Metal
Worst Case:												1.06	25.4	4.64	1.69			
EU-01C Worst Case Total:												1.37	32.8	5.99	3.43			

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Flash-off (fraction)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/yr)	Particulate Potential (tons/yr)	lb VOC /gal solids	Transfer Efficiency	Material Substrate
EU-01D (Solvent)(c1960)(GV)																		
Shell Toluene	7.26	100%	0.00%	100%	0.00%	0.00%	0.0361	30	1.00	7.26	7.26	7.86	189	34.4	0.00	N/A	100%	Metal
EU-01E (Mod) (c1963)(MOD)																		
94 Titanium Black Aqua Zen Enamel	8.85	67.2%	48.6%	18.6%	51.6%	26.4%	0.897	2.0	1.00	3.40	1.65	2.95	70.8	12.9	11.4	6.25	50%	Metal
Beige Aqua-Zen Semi-Gloss Enamel	9.54	62.3%	44.4%	17.9%	50.9%	26.4%	0.897	2.0	1.00	3.47	1.70	3.06	73.3	13.4	14.1	6.46	50%	Metal
Yellow Aqua Zen Enamel	9.48	62.5%	45.6%	16.9%	51.9%	26.7%	0.897	2.0	1.00	3.33	1.60	2.87	68.9	12.6	14.0	6.00	50%	Metal
94 Titanium Black Aqua Zen Enamel	8.85	67.2%	48.6%	18.6%	51.6%	26.4%	0.897	2.0	1.00	3.40	1.65	2.95	70.8	12.9	11.4	6.25	50%	Metal
Black Semi-Gloss Aqua-Zen Enamel	8.93	67.2%	48.8%	18.5%	52.3%	25.7%	0.897	2.0	1.00	3.45	1.65	2.95	70.9	12.9	11.5	6.41	50%	Metal
Charcol Gray S/G Aqua-Zen	9.04	66.7%	48.9%	17.8%	53.1%	25.4%	0.897	2.0	1.00	3.44	1.61	2.89	69.4	12.7	11.8	6.34	50%	Metal
Beige Super Aqua-Zen Enamel	9.66	53.2%	43.2%	10.0%	50.1%	30.9%	0.897	2.0	1.00	1.94	0.966	1.73	41.6	7.59	17.8	3.12	50%	Metal
Red Aqua Zen Enamel	8.89	66.4%	46.7%	19.7%	49.8%	26.9%	0.897	2.0	1.00	3.49	1.75	3.14	75.4	13.8	11.7	6.53	50%	Metal
Onan Green Aqua-Zen Air Dry Enamel	8.86	68.4%	51.1%	17.3%	54.3%	24.8%	0.897	2.0	1.00	3.36	1.54	2.75	66.1	12.1	11.0	6.19	50%	Metal
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	60.5%	42.8%	17.7%	48.4%	78.3%	0.897	2.0	1.00	3.22	1.66	2.98	71.5	13.1	14.6	2.12	50%	Metal

EU-01E Worst Case: 3.14 75.4 13.8 17.8

EU-01 Worst Case Total: 59.0 1417 259 270

EU-04 (Next Generation)(c197)(RB, MB-1, MB-2)																		
Gloss Black High Solids Ura-zen (1)	8.19	46.8%	0.00%	46.8%	0.00%	45.5%	0.400	20	1.00	3.83	3.83	30.7	736	134	38.2	8.42	75%	Metal
Polyurethane Catalyst	8.80	23.8%	0.00%	23.8%	0.00%	70.0%	0.100	20	1.00	2.09	2.09	4.18	100	18.3	14.7	2.99	75%	Metal
R-T-S	8.31	41.9%	0.00%	41.9%	0.00%	50.4%	0.500	20	1.00	3.48	3.48	34.8	836	153	52.9	6.91	75%	Metal
Beige High Solids Ura-zen	11.1	32.4%	0.00%	32.4%	0.00%	49.0%	0.400	20	1.00	3.59	3.59	28.7	689	126	65.7	7.32	75%	Metal
Polyurethane Catalyst	8.80	23.8%	0.00%	23.8%	0.00%	70.0%	0.100	20	1.00	2.09	2.09	4.18	100	18.3	14.7	2.99	75%	Metal
R-T-S	10.6	30.9%	0.00%	30.9%	0.00%	53.2%	0.500	20	1.00	3.29	3.29	32.9	789	144	80.4	6.18	75%	Metal
Color Change (3)																		
Gloss Black High Solids Ura-zen	8.19	46.8%	0.00%	46.8%	0.00%	45.5%	0.0255	20	1.00	3.83	3.83	1.96	46.9	8.57	2.44	8.42	75%	Metal
Polyurethane Catalyst	8.80	23.8%	0.00%	23.8%	0.00%	70.0%	0.0064	20	1.00	2.09	2.09	0.267	6.40	1.17	0.937	2.99	75%	Metal
R-T-S	8.31	41.9%	0.00%	41.9%	0.00%	50.4%	0.0319	20	1.00	3.48	3.48	2.22	53.3	9.74	3.37	6.91	75%	Metal
Methyl Propyl Ketone	6.75	100%	0.00%	100%	0.00%	0.00%	0.160	20	1.00	6.75	6.75	21.5	517	94.3	0.00	N/A	75%	Metal

EU-04 Worst Case and solvents: 58.6 1406 257 83.8

VOC	VOC	VOC	Particulate
(lbs/hr)	(lbs/day)	(tons/yr)	(tons/yr)
118	2823	515	354

Potential emissions:

Control Efficiency		Controlled	Controlled	Controlled	Controlled
VOC	PM	VOC	VOC	VOC	Particulate
0.00%	99.9%	(lbs/hr)	(lbs/day)	(tons/yr)	(tons/yr)

Controlled potential emissions: 118 2823 515 0.354

Methodology:
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
RTS Density (lbs/gal) = ((Da*Va)+(Db*Vb)+(Dc*Vc))/(Va+Vb+Vc)
RTS Weight % H2O + Organics = ((Wa*Da*Va)+(Wb*Db*Vb)+(Wc*Dc*Vc))/((Da*Va)+(Db*Vb)+(Dc*Vc))
Total = RTS
c=constructed

HAP Emission Calculations

Company Name: Cummins Engine Company, Inc. Plant #1
 Plant Location: 1000 5th Street, Columbus, IN 47202
 Part 70: T 005-7433
 Plt ID#: 005-00015
 County: Bartholomew
 Permit Reviewer: Mark L. Kramer
 Date: December 10, 1996

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Nickel Compounds	Weight % Hexane	Weight % Glycol Ethers	Weight % Cobalt Compounds	Nickel Compound Emissions (tons/yr)	Hexane Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Cobalt Compound Emissions (tons/yr)
EU-01A (Primer Booth)(c1985)											
Robotic (P1)											
Beige Aqua-Zen Primer	9.65	0.0444	30	0.00%	0.00%	14.0%	0.229%	0.00	0.00	7.91	0.129
Clear Aqua-Zen Flow Coat Primer	8.38	0.0444	30	0.00%	0.00%	15.8%	0.265%	0.00	0.00	7.75	0.130
Black Aqua-Zen Primer	10.1	0.0444	30	0.00%	0.00%	13.5%	0.186%	0.00	0.00	7.97	0.110
Worst Case:								0.00	0.00	7.97	0.130

Fixed (P2)											
Beige Aqua-Zen Primer	9.65	0.267	30	0.00%	0.00%	14.0%	0.229%	0.00	0.00	47.5	0.774
Clear Aqua-Zen Flow Coat Primer	8.38	0.267	30	0.00%	0.00%	15.8%	0.265%	0.00	0.00	46.5	0.778
Black Aqua-Zen Primer	10.1	0.267	30	0.00%	0.00%	13.5%	0.186%	0.00	0.00	47.8	0.660
							Worst Case:	0.00	0.00	47.8	0.778

EU-01B (Topcoat Booth)(C1960)												
Robotic (T2)												
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.0828	30	0.00%	0.00%	16.8%	0.260%	0.00	0.00	17.5	0.270	
Yellow Aqua Zen Enamel	9.48	0.0828	30	0.555%	0.00%	15.9%	0.285%	0.572	0.00	16.4	0.294	
94 Titanium Black Aqua Zen Enamel	8.85	0.0828	30	0.00%	0.00%	17.5%	0.314%	0.00	0.00	16.8	0.302	
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.0828	30	0.00%	0.00%	17.3%	0.284%	0.00	0.00	16.8	0.276	
Charcol Gray S/G Aqua-Zen	9.04	0.0828	30	0.00%	0.00%	16.8%	0.280%	0.00	0.00	16.5	0.275	
Beige Super Aqua-Zen Enamel	9.66	0.0828	30	0.00%	0.00%	10.0%	0.00%	0.00	0.00	10.5	0.00	
Red Aqua Zen Enamel	8.89	0.0828	30	0.00%	0.00%	18.6%	0.288%	0.00	0.00	17.9	0.279	
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.0828	30	0.00%	0.00%	16.1%	0.308%	0.00	0.00	15.5	0.297	
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.0828	30	0.00%	0.00%	16.0%	0.00%	0.00	0.00	16.4	0.00	
							Worst Case:	0.572	0.00	17.9	0.302	

Fixed (T1)											
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.497	30	0.00%	0.00%	16.8%	0.260%	0.00	0.00	105	1.62
Yellow Aqua Zen Enamel	9.48	0.497	30	0.56%	0.00%	15.9%	0.285%	3.43	0.00	98.3	1.76
94 Titanium Black Aqua Zen Enamel	8.85	0.497	30	0.00%	0.00%	17.5%	0.314%	0.00	0.00	101	1.81
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.497	30	0.00%	0.00%	17.3%	0.284%	0.00	0.00	101	1.66
Charcol Gray S/G Aqua-Zen	9.04	0.497	30	0.00%	0.00%	16.8%	0.280%	0.00	0.00	98.8	1.65
Beige Super Aqua-Zen Enamel	9.66	0.497	30	0.00%	0.00%	10.0%	0.000%	0.00	0.00	63.1	0.00
Red Aqua Zen Enamel	8.89	0.497	30	0.00%	0.00%	18.6%	0.288%	0.00	0.00	108	1.67
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.497	30	0.00%	0.00%	16.1%	0.308%	0.00	0.00	93.2	1.78
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.497	30	0.00%	0.00%	16.0%	0.000%	0.00	0.00	98.4	0.00
Worst Case:								3.43	0.00	108	1.81

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Nickel Compounds	Weight % Hexane	Weight % Glycol Ethers	Weight % Cobalt Compounds	Nickel Compound Emissions (tons/yr)	Hexane Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Cobalt Compound Emissions (tons/yr)
EU-01C (Touchup Booth)(c1960)											
Fixed (TU1, TU2)											
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.00585	30	0.00%	0.00%	16.8%	0.260%	0.00	0.00	1.23	0.0191
Yellow Aqua Zen Enamel	9.48	0.00585	30	0.555%	0.00%	15.9%	0.285%	0.0404	0.00	1.16	0.0208
94 Titanium Black Aqua Zen Enamel	8.85	0.00585	30	0.00%	0.00%	17.5%	0.314%	0.00	0.00	1.19	0.0214
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.00585	30	0.00%	0.00%	17.3%	0.284%	0.00	0.00	1.19	0.0195
Charcol Gray S/G Aqua-Zen	9.04	0.00585	30	0.00%	0.00%	16.8%	0.280%	0.00	0.00	1.16	0.0195
Beige Super Aqua-Zen Enamel	9.66	0.00585	30	0.00%	0.00%	10.0%	0.00%	0.00	0.00	0.74	0.00
Red Aqua Zen Enamel	8.89	0.00585	30	0.00%	0.00%	18.6%	0.288%	0.00	0.00	1.27	0.0197
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.00585	30	0.00%	0.00%	16.1%	0.308%	0.00	0.00	1.10	0.0210
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.00585	30	0.00%	0.00%	16.0%	0.00%	0.00	0.00	1.16	0.00
Worst Case:								0.0404	0.00	1.27	0.0214

Aerosol (GV)											
Cummins Yellow Aerosol It	6.06	0.00825	30	0.00%	18.8%	0.00%	0.00%	0.00	1.24	0.00	0.00
Cummins NTC-444 Black Spray Enamel	5.95	0.00825	30	0.00%	19.7%	0.00%	0.00%	0.00	1.27	0.00	0.00
Onan Green Aerosol Paint	5.94	0.00825	30	0.00%	8.90%	0.00%	0.00%	0.00	0.573	0.00	0.00
Cummins International Red Spray Enamel It	5.96	0.00825	30	0.00%	17.8%	0.00%	0.00%	0.00	1.15	0.00	0.00
Cummins Beige Spray Enamel It	6.16	0.00825	30	0.00%	18.9%	0.00%	0.00%	0.00	1.26	0.00	0.00
Cummins Charcoal Spray Enamel It	5.94	0.00825	30	0.00%	20.1%	0.00%	0.00%	0.00	1.29	0.00	0.00
Titanium Black Vinal Toluene Titanium Black Aerosol	6.13	0.00825	30	0.00%	15.0%	0.00%	0.00%	0.00	1.00	0.00	0.00
Cummins Marine Gray Spray Enamel It	6.17	0.00825	30	0.00%	19.3%	0.00%	0.00%	0.00	1.29	0.00	0.00
Worst Case:								0.00	1.29	0.00	0.00

EU-01D (Solvent)(c1960)(GV)											
Shell Toluene	7.26	0.0361	30	0.00%	0.00%	5.72%	0.198%	0.00	0.00	1.97	0.0682

EU-01E (Mod) (c1963)(MOD)											
94 Titanium Black Aqua Zen Enamel	8.85	0.897	2.0	0.00%	0.00%	17.5%	0.314%	0.00	0.00	12.1	0.218
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.897	2.0	0.00%	0.00%	16.8%	0.260%	0.00	0.00	12.6	0.195
Yellow Aqua Zen Enamel	9.48	0.897	2.0	0.555%	0.00%	15.9%	0.285%	0.413	0.00	11.8	0.212
94 Titanium Black Aqua Zen Enamel	8.85	0.897	2.0	0.00%	0.00%	17.5%	0.314%	0.00	0.00	12.1	0.218
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.897	2.0	0.00%	0.00%	17.3%	0.284%	0.00	0.00	12.1	0.199
Charcol Gray S/G Aqua-Zen	9.04	0.897	2.0	0.00%	0.00%	16.8%	0.280%	0.00	0.00	11.9	0.199
Beige Super Aqua-Zen Enamel	9.66	0.897	2.0	0.00%	0.00%	10.0%	0.00%	0.00	0.00	7.59	0.00
Red Aqua Zen Enamel	8.89	0.897	2.0	0.00%	0.00%	18.6%	0.288%	0.00	0.00	13.0	0.201
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.897	2.0	0.00%	0.00%	16.1%	0.308%	0.00	0.00	11.2	0.214
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.897	2.0	0.00%	0.00%	16.0%	0.00%	0.00	0.00	11.8	0.00
Worst Case:								0.413	0.00	13.0	0.218

EU-01 Worst Case Total: **4.46** **1.29** **198** **3.33**

EU-04 (Next Generation)(c1/97)(RB, MB-1, MB-2)											
Gloss Black High Solids Ura-zen (1)	8.19	0.400	20	0.00%	0.00%	5.72%	0.198%	0.00	0.00	16.4	0.568
Polyurethane Catalyst	8.80	0.100	20	0.00%	0.00%	5.72%	0.198%	0.00	0.00	4.41	0.153
Beige High Solids Ura-zen	11.1	0.400	20	0.00%	0.00%	5.72%	0.198%	0.00	0.00	22.2	0.769
Polyurethane Catalyst	8.80	0.100	20	0.00%	0.00%	5.72%	0.198%	0.00	0.00	4.41	0.153
Color Change (3)											
Gloss Black High Solids Ura-zen	8.19	0.0255	20	0.00%	0.00%	5.72%	0.198%	0.00	0.00	1.05	0.0363
Polyurethane Catalyst	8.80	0.00638	20	0.00%	0.00%	5.72%	0.198%	0.00	0.00	0.281	0.00974
Methyl Propyl Ketone	6.75	0.160	20	0.00%	0.00%	5.72%	0.198%	0.00	0.00	5.39	0.187
EU-04 Worst Case and Solvents:								0.00	0.00	33.3	1.15

TOTALS:

(tons/yr):
(lb/hr):
(g/sec):

Nickel Compounds	Hexane	Glycol Ethers	Cobalt Compounds
4.46	1.29	231	4.49
1.02	0.295	52.7	1.02
0.128	0.0372	6.64	0.129

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Hexamethylene	Weight % MIBK	Weight % Ethyl benzene	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	Hexamethylene Emissions (tons/yr)	MIBK Emissions (tons/yr)	Ethyl benzene Emissions (tons/yr)
EU-01A (Primer Booth)(c1985)													
Robotic (P1)													
Beige Aqua-Zen Primer	9.65	0.0444	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Clear Aqua-Zen Flow Coat Primer	8.38	0.0444	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Black Aqua-Zen Primer	10.1	0.0444	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Worst Case:									0.00	0.00	0.00	0.00	0.00

Fixed (P2)													
Beige Aqua-Zen Primer	9.65	0.267	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Clear Aqua-Zen Flow Coat Primer	8.38	0.267	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Black Aqua-Zen Primer	10.1	0.267	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Worst Case:									0.00	0.00	0.00	0.00	0.00

EU-01B (Topcoat Booth)(C1960)													
Robotic (T2)													
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Yellow Aqua Zen Enamel	9.48	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
94 Titanium Black Aqua Zen Enamel	8.85	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Charcol Gray S/G Aqua-Zen	9.04	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Beige Super Aqua-Zen Enamel	9.66	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Red Aqua Zen Enamel	8.89	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.0828	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Worst Case:									0.00	0.00	0.00	0.00	0.00

Fixed (T1)													
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Yellow Aqua Zen Enamel	9.48	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
94 Titanium Black Aqua Zen Enamel	8.85	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Charcol Gray S/G Aqua-Zen	9.04	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Beige Super Aqua-Zen Enamel	9.66	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Red Aqua Zen Enamel	8.89	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.497	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Worst Case:									0.00	0.00	0.00	0.00	0.00

EU-01C (Touchup Booth)(c1960)													
Fixed (TU1, TU2)													
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Yellow Aqua Zen Enamel	9.48	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
94 Titanium Black Aqua Zen Enamel	8.85	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Charcol Gray S/G Aqua-Zen	9.04	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Beige Super Aqua-Zen Enamel	9.66	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Red Aqua Zen Enamel	8.89	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.00585	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Worst Case:									0.00	0.00	0.00	0.00	0.00

Aerosol (GV)													
Cummins Yellow Aerosol It	6.06	0.00825	30	2.86%	8.48%	0.00%	0.00%	0.69%	0.188	0.557	0.00	0.00	0.0453
Cummins NTC-444 Black Spray Enamel	5.95	0.00825	30	4.51%	8.87%	0.00%	0.00%	1.08%	0.291	0.572	0.00	0.00	0.0697
Onan Green Aerosol Paint	5.94	0.00825	30	1.60%	9.11%	0.00%	0.00%	0.390%	0.103	0.587	0.00	0.00	0.0251
Cummins International Red Spray Enamel It	5.96	0.00825	30	2.01%	8.01%	0.00%	0.00%	0.00%	0.130	0.518	0.00	0.00	0.00
Cummins Beige Spray Enamel It	6.16	0.00825	30	5.70%	8.50%	0.00%	0.00%	0.00%	0.381	0.568	0.00	0.00	0.00
Cummins Charcoal Spray Enamel It	5.94	0.00825	30	3.37%	8.01%	0.00%	0.00%	0.00%	0.217	0.516	0.00	0.00	0.00
Titanium Black Vinal Toluene Titanium Black Aerosol	6.13	0.00825	30	5.00%	15.0%	0.00%	0.00%	0.00%	0.332	0.997	0.00	0.00	0.00
Cummins Marine Gray Spray Enamel It	6.17	0.00825	30	2.95%	8.68%	0.00%	0.00%	0.00%	0.197	0.581	0.00	0.00	0.00
Worst Case:									0.381	1.00	0.00	0.00	0.0697

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Hexamethylene	Weight % MIBK	Weight % Ethyl benzene	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	Hexamethylene Emissions (tons/yr)	MIBK Emissions (tons/yr)	Ethyl benzene Emissions (tons/yr)
EU-01D (Solvent)(c1960)(GV)													
Shell Toluene	7.26	0.0361	30	0.00%	100.0%	0.00%	0.00%	0.00%	0.00	34.4	0.00	0.00	0.00

EU-01E (Mod) (c1963)(MOD)													
94 Titanium Black Aqua Zen Enamel	8.85	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Beige Aqua-Zen Semi-Gloss Enamel	9.54	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Yellow Aqua Zen Enamel	9.48	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
94 Titanium Black Aqua Zen Enamel	8.85	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Black Semi-Gloss Aqua-Zen Enamel	8.93	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Charcol Gray S/G Aqua-Zen	9.04	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Beige Super Aqua-Zen Enamel	9.66	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Red Aqua Zen Enamel	8.89	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Onan Green Aqua-Zen Air Dry Enamel	8.86	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Marine Gray Aqua-Zen Semi-Gloss Enamel	9.41	0.897	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
Worst Case:									0.00	0.00	0.00	0.00	0.00

EU-01 Worst Case Total: 0.381 35.4 0.00 0.00 0.0697

EU-04 (Next Generation)(c197)(RB, MB-1, MB-2)													
Gloss Black High Solids Ura-zen (1)	8.19	0.400	20	3.96%	2.43%	0.00%	4.27%	1.57%	11.4	6.97	0.00	12.3	4.51
Polyurethane Catalyst	8.80	0.100	20	0.00%	0.00%	0.169%	0.00%	0.00%	0.00	0.00	0.130	0.00	0.00
Beige High Solids Ura-zen	11.1	0.400	20	2.31%	1.31%	0.00%	6.16%	0.00%	8.97	5.09	0.00	23.9	0.00
Polyurethane Catalyst	8.80	0.100	20	0.00%	0.00%	0.169%	0.00%	0.00%	0.00	0.00	0.130	0.00	0.00
Color Change (3)													
Gloss Black High Solids Ura-zen	8.19	0.0255	20	3.96%	2.43%	0.00%	4.27%	1.57%	0.726	0.445	0.00	0.783	0.288
Polyurethane Catalyst	8.80	0.00638	20	0.00%	0.00%	0.169%	0.00%	0.00%	0.00	0.00	0.00831	0.00	0.00
Methyl Propyl Ketone	6.75	0.160	20	0.00%	0.00%	0.00%	5.50%	0.00%	0.00	0.00	0.00	5.19	0.00

EU-04 Worst Case and Solvents: 12.1 7.42 0.139 29.9 4.80

TOTALS:

(tons/yr):
(lb/hr):
(g/sec):

Xylene	Toluene	Hexamethylene	MIBK	Ethyl benzene
12.5	42.8	0.139	29.9	4.87
2.85	9.78	0.0316	6.83	1.11
0.359	1.23	0.00399	0.860	0.140

(tons/yr):
(lb/hr):
(g/sec):

Nickel Compounds	Hexane	Glycol Ethers	Cobalt Compounds
4.46	1.29	231	4.49
1.02	0.295	52.7	1.02
0.128	0.0372	6.64	0.129

Total Combined HAPs (tons/yr): 331.4

Methodology:

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emission Calculations
Potential Emissions Engine Test Cells**

Company Name: Cummins Engine Company, Inc. Plant #1
Address City IN Zip: 1000 5th Street, Columbus, IN 47202
Part 70: T 005-7433
Plt ID: 005-00015
Reviewer: Mark L. Kramer
Date: December 10, 1996

Potential Criteria Pollutant Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	NOx Emission Factor (lbs/gallon burned)	Potential NOx (tons/yr)	PM Emission Factor (lbs/gallon burned)	Potential PM (tons/yr)	PM-10 Emission Factor (lbs/gallon burned)	Potential PM-10 (tons/yr)
EU-02A 101-105, 601-603, 1-4	Endurance Test Cells 12-500 HP engine test cells	2564928	#2 Diesel	354630	0.604	775	0.0425	54.5	0.0425	54.5
EU-02B 106, 107, 201-207, 301-303, 401-403, 501-503	Production Test Cells 18-450 HP engine test cells	2633256	#2 Diesel	364077	0.604	795	0.0425	56.0	0.0425	56.0
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.604	129	0.0425	9.08	0.0425	9.08
Total Potential Fuel Throughput (gallons/year):		5625672		Total Pollutant (tons/yr):		1699		120		120

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	CO Emission Factor (lbs/gallon burned)	Potential CO (tons/yr)	SO2 Emission Factor (lbs/gallon burned)	Potential SO2 (tons/yr)	VOC Emission Factor (lbs/MMBtu)	Potential VOC (tons/yr)
EU-02A 101-105, 601-603, 1-4	Endurance Test Cells 12-500 HP engine test cells	2564928	#2 Diesel	354630	0.130	167	0.0397	50.9	0.350	62.1
EU-02B 106, 107, 201-207, 301-303, 401-403, 501-503	Production Test Cells 18-450 HP engine test cells	2633256	#2 Diesel	364077	0.130	171	0.0397	52.3	0.350	63.7
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.130	27.8	0.0397	8.49	0.350	10.3
Total Potential Fuel Throughput (gallons/year):		5625672		Total Pollutant (tons/yr):		366		112		136

Potential HAPs Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Benzene Emission Factor (lbs/MMBtu)	Potential Benzene (tons/yr)	Toluene Emission Factor (lbs/MMBtu)	Potential Toluene (tons/yr)	Xylene Emission Factor (lbs/MMBtu)	Potential Xylene (tons/yr)	1, 3 Butadiene Emission Factor (lbs/MMBtu)	Potential 1, 3 Butadiene (tons/yr)
EU-02A 101-105, 601-603, 1-4	Endurance Test Cells 12-500 HP engine test cells	2564928	#2 Diesel	354630	0.000933	0.165	0.000409	0.0725	0.000285	0.0505	0.0000391	0.00693
EU-02B 106, 107, 201-207, 301-303, 401-403, 501-503	Production Test Cells 18-450 HP engine test cells	2633256	#2 Diesel	364077	0.000933	0.170	0.000409	0.0745	0.000285	0.0519	0.0000391	0.00712
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.000933	0.0276	0.000409	0.0121	0.000285	0.00842	0.0000391	0.00116
Total Potential Fuel Throughput (gallons/year):		5625672		Total Pollutant (tons/yr):		0.363		0.159		0.111		0.0152

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Formaldehyde Emission Factor (lbs/MMBtu)	Potential Formaldehyde (tons/yr)	Acetaldehyde Emission Factor (lbs/MMBtu)	Potential Acetaldehyde (tons/yr)	Acrolien Emission Factor (lbs/MMBtu)	Potential Acrolien (tons/yr)	PAH Emission Factor (lbs/MMBtu)	Potential PAH (tons/yr)
EU-02A 101-105, 601-603, 1-4	Endurance Test Cells 12-500 HP engine test cells	2564928	#2 Diesel	354630	0.00118	0.209	0.000767	0.136	0.0000925	0.0164	0.000168	0.0298
EU-02B 106, 107, 201-207, 301-303, 401-403, 501-503	Production Test Cells 18-450 HP engine test cells	2633256	#2 Diesel	364077	0.00118	0.215	0.000767	0.140	0.0000925	0.0168	0.000168	0.0306
EU-TS1 and TS2	Engine Test Cells 2-550 HP engine test cells	427488	#2 Diesel	59105	0.00118	0.0349	0.000767	0.0227	0.0000925	0.00273	0.000168	0.00496
Total Potential Fuel Throughput (gallons/year):		5625672		Total Pollutant (tons/yr):		0.459		0.298		0.0360		0.0653

Total Combined HAPs (tons/yr): 1.51
--

Methodology:

Emission factors were taken from the FIRE 6.2 Database, VOC from AP-42, Table 3.3-1.
The HAPs emission factors were supplied by Cummins Industrial Center.
1.0 gal. diesel fuel = 0.138261 MMBtu
(c1991) indicates construction during 1991, dates for units may vary

Company Name: Cummins Engine Company, Inc. Plant #1
 Address City IN Zip: 1000 5th Street, Columbus, IN 47202
 Part 70: T 005-7433
 Pit ID: 005-00015
 Reviewer: Mark L. Kramer
 Date: December 10, 1996

Limited Criteria Pollutant Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	NOx Emission Factor (lbs/gallon burned)	Potential NOx (tons/yr)	PM Emission Factor (lbs/gallon burned)	Potential PM (tons/yr)	PM-10 Emission Factor (lbs/gallon burned)	Potential PM-10 (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.604	0.105	0.0425	0.00737	0.0425	0.00737
Total Potential Fuel Throughput (gallons/year):		347			Total Pollutant (tons/yr):	0.105		0.00737		0.00737

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	CO Emission Factor (lbs/gallon burned)	Potential CO (tons/yr)	SO2 Emission Factor (lbs/gallon burned)	Potential SO2 (tons/yr)	VOC Emission Factor (lbs/MMBtu)	Potential VOC (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.130	0.0225	0.0397	0.00688	0.350	0.00839
Total Potential Fuel Throughput (gallons/year):		347			Total Pollutant (tons/yr):	0.0225		0.00688		0.00839

Limited HAPs Emissions

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Benzene Emission Factor (lbs/MMBtu)	Potential Benzene (tons/yr)	Toluene Emission Factor (lbs/MMBtu)	Potential Toluene (tons/yr)	Xylene Emission Factor (lbs/MMBtu)	Potential Xylene (tons/yr)	1, 3 Butadiene Emission Factor (lbs/MMBtu)	Potential 1, 3 Butadiene (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.000933	0.0000224	0.000409	0.00000980	0.000285	0.00000683	0.0000391	0.000000937
Total Potential Fuel Throughput (gallons/year):		347			Total Pollutant (tons/yr):	0.0000224		0.00000980		0.00000683		0.000000937

Point	Source	Potential Fuel Used (gallons/year)	Fuel Type	Potential MMBtu/year	Formaldehyde Emission Factor (lbs/MMBtu)	Potential Formaldehyde (tons/yr)	Acetaldehyde Emission Factor (lbs/MMBtu)	Potential Acetaldehyde (tons/yr)	Acrolien Emission Factor (lbs/MMBtu)	Potential Acrolien (tons/yr)	PAH Emission Factor (lbs/MMBtu)	Potential PAH (tons/yr)
EU-TS1 and TS2 limited to 0.95 gal./day (c1997)	Engine Test Cells 2-550 HP engine test cells	347	#2 Diesel	47.9	0.00118	0.0000283	0.000767	0.0000184	0.0000925	0.00000222	0.000168	0.00000403
Total Potential Fuel Throughput (gallons/year):		347	Total Pollutant (tons/yr):			0.0000283		0.0000184		0.00000222		0.00000403
					Total Combined HAPs (tons/yr):		0.0000929					

Methodology:

Emission factors were taken from the FIRE 6.2 Database, VOC from AP-42, Table 3.3-1.
 The HAPs emission factors were supplied by Cummins Industrial Center.

1.0 gal. diesel fuel = 0.140 MMBtu

(c1991) indicates construction during 1991, dates for units may vary

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boilers

Company Name: Cummins Engine Company, Inc. Plant #1
 Address City IN Zip: 1000 5th Street, Columbus, IN 47202
 Part 70: T 005-7433
 Plt ID: 005-00015
 Reviewer: Mark L. Kramer
 Date: December 10, 1996

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

EU-03A (c1960), B (c1961), C (c1951)

93.0

815

EU-03A = 36.0 MMBtu/hour

EU-03B = 36.0 MMBtu/hour

EU-03C = 21.0 MMBtu/hour

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	0.774	3.10	0.244	40.7	2.24	34.2

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.00210	0.00120	0.0750	1.80	0.00340
Potential Emission in tons/yr	0.000855	0.000489	0.0306	0.733	0.00138

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	0.000500	0.00110	0.00140	0.000380	0.00210
Potential Emission in tons/yr	0.000204	0.000448	0.000570	0.000155	0.000855

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

EU-03D (c1985)

50.0

438

EU-03D = 50.0 MMBtu/hour

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.6	100.0 *see below	5.5	84.0
Potential Emission in tons/yr	0.416	1.66	0.131	21.9	1.20	18.4

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.00210	0.00120	0.0750	1.80	0.00340
Potential Emission in tons/yr	0.000855	0.000489	0.0306	0.733	0.00138

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	0.000500	0.00110	0.00140	0.000380	0.00210
Potential Emission in tons/yr	0.000204	0.000448	0.000570	0.000155	0.000855

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

(SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations

#2 Fuel Oil
MM BTU/HR <100
Small Industrial Boilers

Company Name: Cummins Engine Company, Inc. Plant #1
Address, City IN Zip: 1000 5th Street, Columbus, IN 47202
Part 70: T 005-7433
Plt ID: 005-00015
Reviewer: Mark L. Kramer
Date: December 10, 1996

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
EU-03A (c1960), B (c1961), C (c1951)		0.5
93.0	5819	

EU-03A = 36.0 MMBtu/hour
EU-03B = 36.0 MMBtu/hour
EU-03C = 21.0 MMBtu/hour

Emission Factor in lb/kgal	Pollutant				
	PM*	SO ₂	NO _x	VOC	CO
	2.00	71.00 (142.0S)	20.0	0.340	5.00
Potential Emission in tons/yr	5.82	207	58.2	0.989	14.5

HAPs - Metals					
Emission Factor in lb/mmBtu	Arsenic 0.00000400	Beryllium 0.00000300	Cadmium 0.00000300	Chromium 0.00000300	Lead 0.00000900
Potential Emission in tons/yr	0.00163	0.00122	0.00122	0.00122	0.00367

HAPs - Metals (continued)				
Emission Factor in lb/mmBtu	Mercury 0.00000300	Manganese 0.00000600	Nickel 0.00000300	Selenium 0.0000150
Potential Emission in tons/yr	0.00122	0.00244	0.00122	0.00611

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
EU-03D (c1985)		0.5
50.0	3129	

EU-03D = 50.0 MMBtu/hour

Emission Factor in lb/kgal	Pollutant				
	PM*	SO ₂	NO _x	VOC	CO
	2.00	71.00 (142.0S)	20.0	0.340	5.00
Potential Emission in tons/yr	3.13	111	31.3	0.532	7.82

HAPs - Metals					
Emission Factor in lb/mmBtu	Arsenic 0.00000400	Beryllium 0.00000300	Cadmium 0.00000300	Chromium 0.00000300	Lead 0.00000900
Potential Emission in tons/yr	0.00163	0.00122	0.00122	0.00122	0.00367

HAPs - Metals (continued)				
Emission Factor in lb/mmBtu	Mercury 0.00000300	Manganese 0.00000600	Nickel 0.00000300	Selenium 0.0000150
Potential Emission in tons/yr	0.00122	0.00244	0.00122	0.00611

Methodology

1.0 gallon of # 2 Fuel Oil has a heating value of 140,000 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal per 1000 gallon x 1 gal per 0.140 MM Btu
Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-02-005-01/02/03) Supplement E 9/98
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton